TEXTILE BULLETIN

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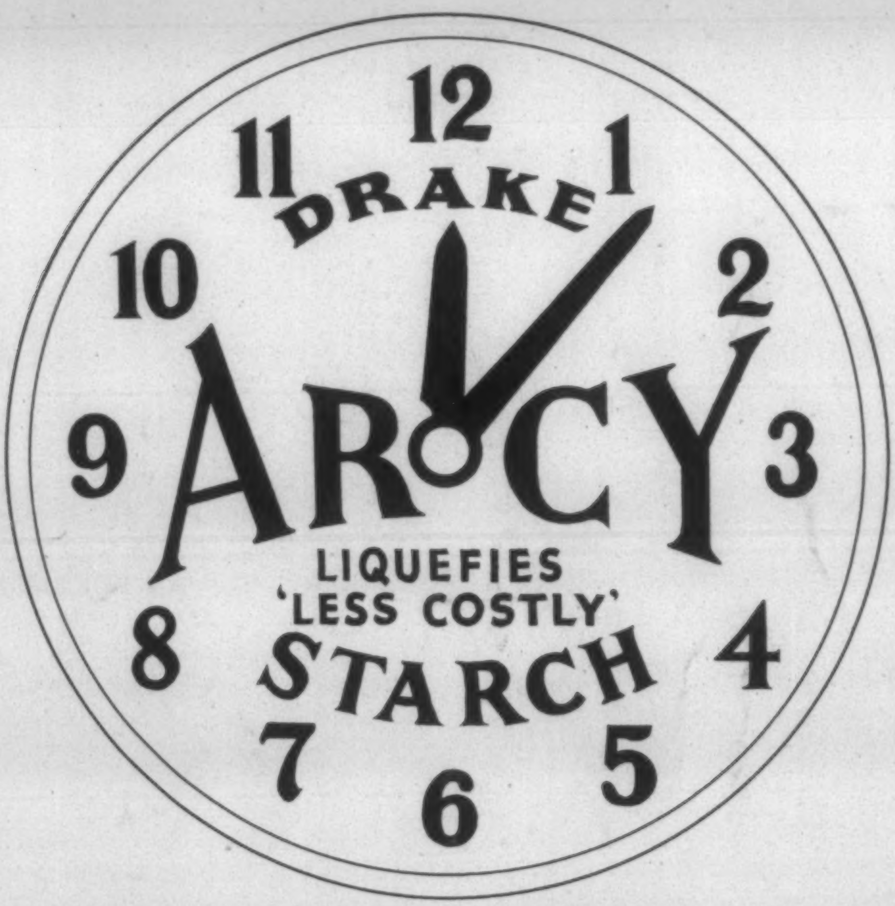

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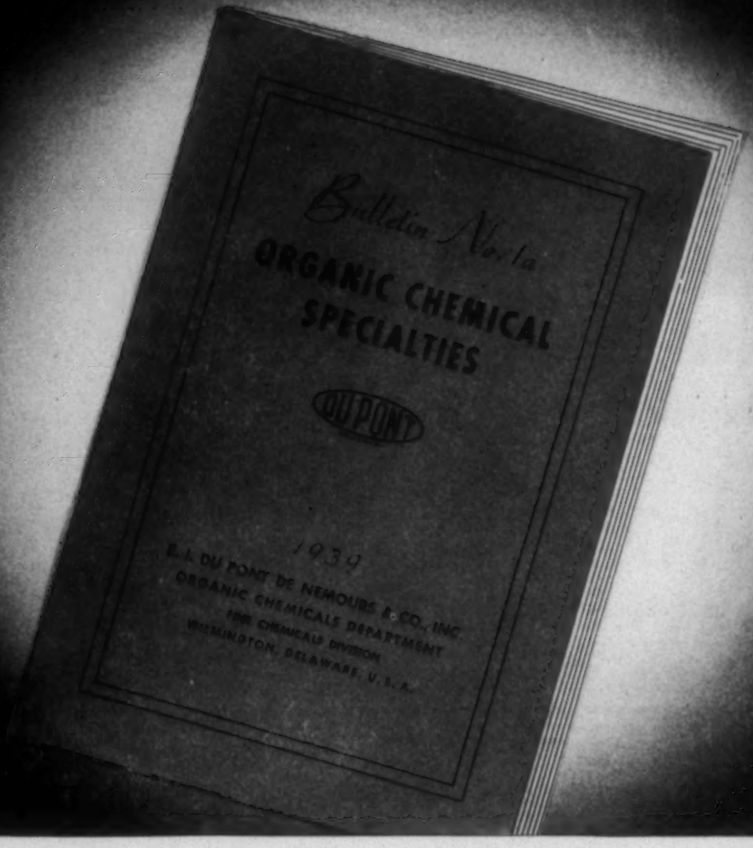

Bulletin No. 1a
ORGANIC CHEMICAL SPECIALTIES
DU PONT
1939
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ORGANIC CHEMICALS DEPARTMENT
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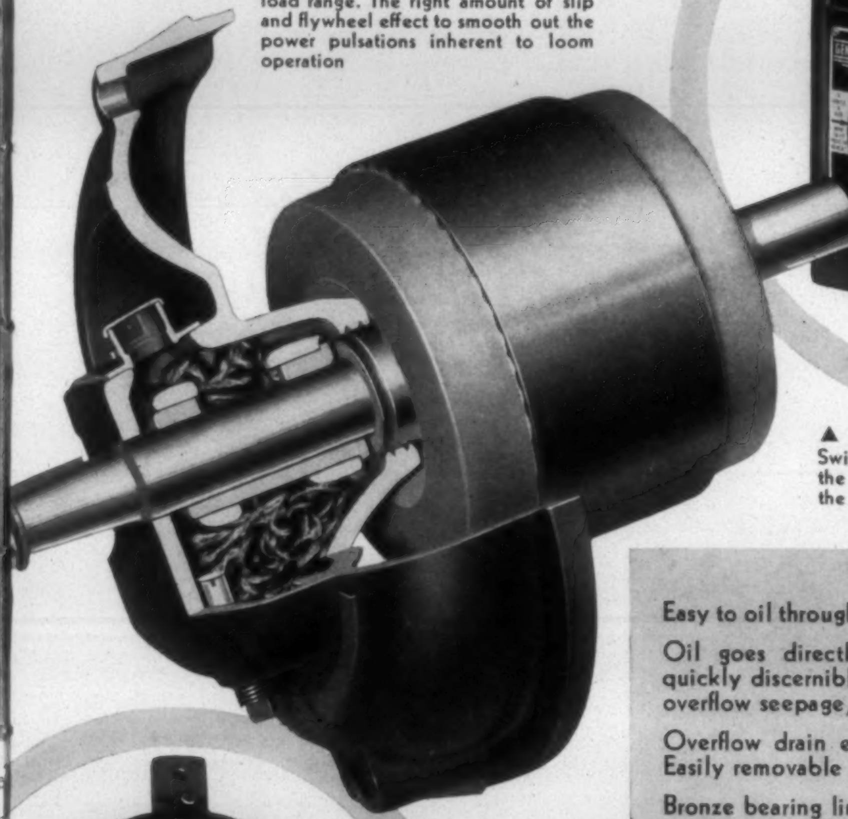

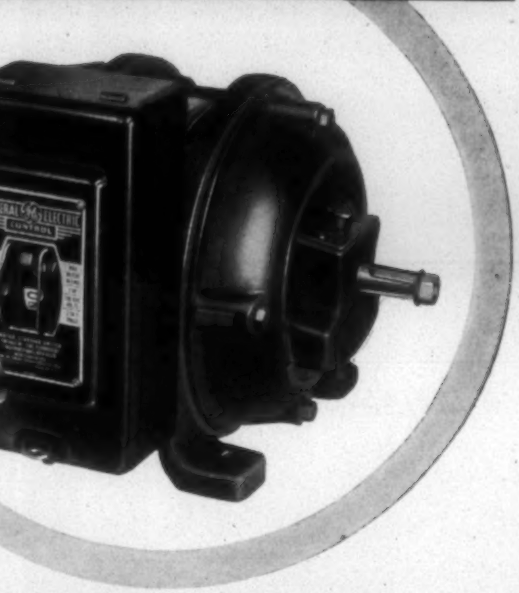

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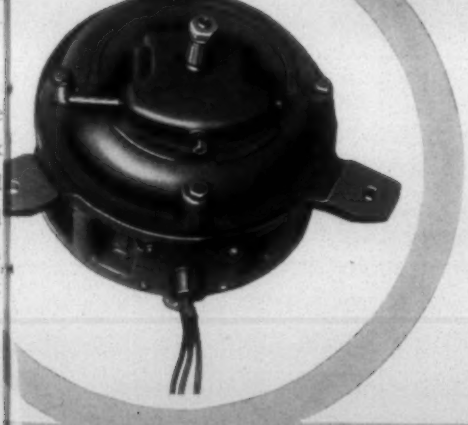

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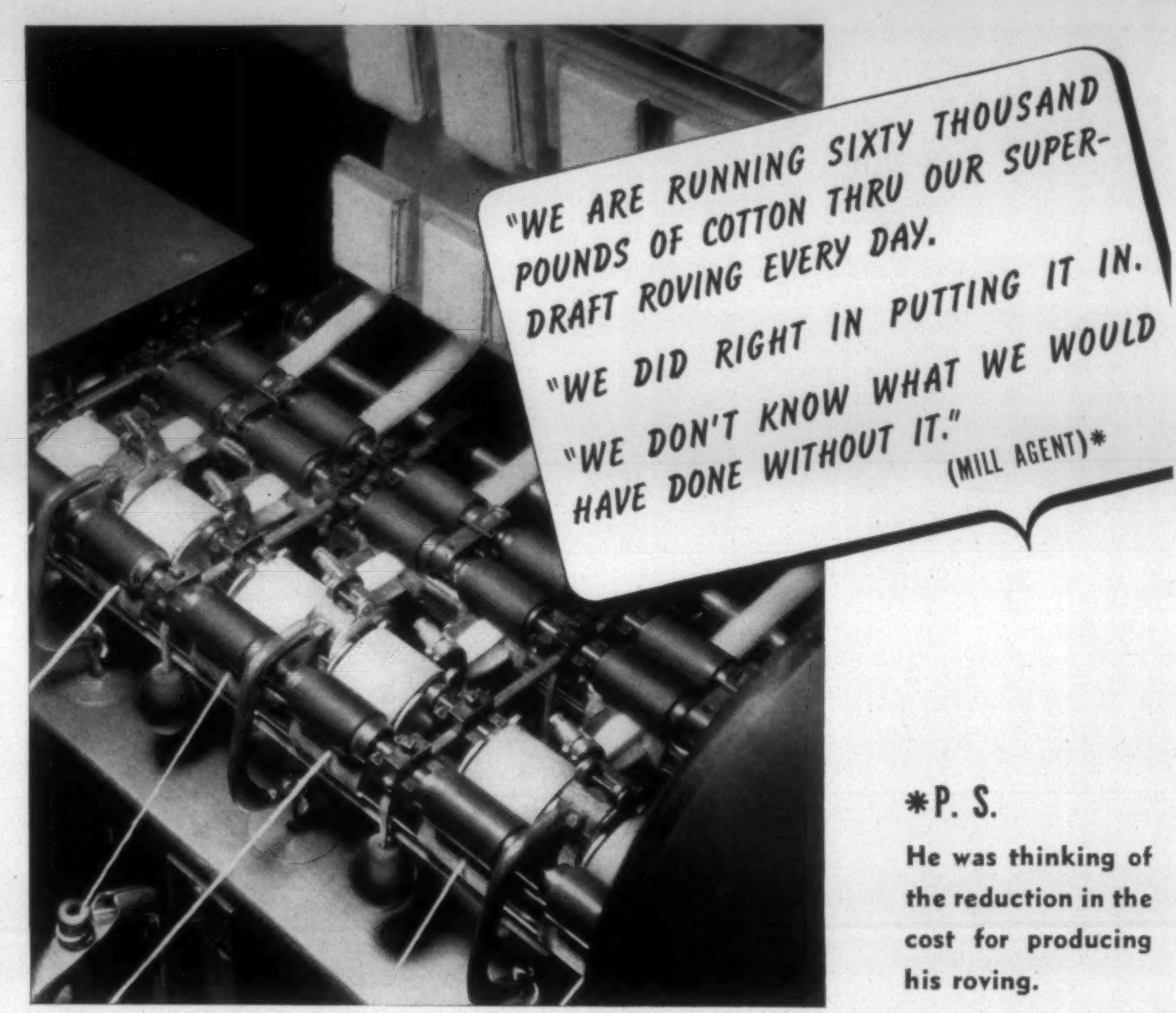
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TEXTILE BULLETIN

Member Audit Bureau of Circulations

Vol. 56 June 15, 1939 No. 8

Yarn and Fabric Trends —In Europe and America*

By H. Wickliffe Rose

American Viscose Corp.

PERSPECTIVE is what we need most today in studying rayon yarn and fabric trends in Europe and America. In order, then, to gain a perspective on the number of new products and the current trends, let us examine first what the rayon industry is doing and why.

Rayon Industry in Germany

In Germany there is tremendous activity on rayon staple fiber for a very definite purpose and under a very definite plan. In fact the plan is so clear and concise that, regardless of our personal opinion of their politics or methods, it will be worth while to study it for a moment.

The entire rayon industry in Germany is controlled by one man, Herr Kehrl, who has the powers of a dictator. A plan has been worked out to fit in with the broader plans of the national economy, and it has now been in operation for some time. The plan is divided into three phases, each simple in itself but only possible for complete operation in a country where costs, prices, wages, the value of currency, and the production and sale of goods is under complete control.

The first phase is for quantity production. We know that that phase has been successful for Germany has an annual production of approximately 400 million pounds of rayon staple fiber at present. This first phase has enabled the industry dictator to decree that fabrics shall contain a certain percentage of spun rayon, replacing natural fiber, cotton, or wool, which otherwise would have to be bought abroad. The percentage decreed requires just about the amount of staple now that the country can produce, although it both exports and imports staple at present. The staple is required in fabrics where it is considered suitable, and the percentage is estimated with the thought of not placing more burden of serviceability on the rayon than it can bear.

The second phase is one of research and experimenting to improve the technical qualities of rayon. The purpose of this phase is mainly to bring up the strength of the fiber to a point where it can replace more or all of the natural fiber and then to raise the percentage by decree. While this second phase of research is in progress at the present time, the first continues, and the production of 400 million is being raised to a capacity of 600 million pounds of staple fiber by the end of 1940.

The research is required of every producer by the industry dictator, who has stipulated a certain percentage of income which must be devoted to that purpose. While "hochnassfest," or high tenacity is the principal aim, diversification is another, and a great number of yarns and staple fibers are offered with various characteristics for a number of different fabric uses.

The third phase is planned for low costs and low prices. Rayons are high priced in Germany today, but it is figured that when the high tenacity makes it possible to decree a greater percentage, and when varied types broaden the uses of staple fiber, production will be at a rate which will give lower costs, and prices, which are set by the industry dictator, can then be lowered. The lower prices should also have the reciprocal effect of broadening the market for rayon and insuring consumption of the increased production. Incidentally, if the home market does not consume the tremendous production in prospect, it will be forced into foreign markets, by barter or subsidy and will become an additional threat to industries which ordinarily operate on an economy of free competition between fibers, and to countries which have natural fiber crops.

As a part of the second phase of the rayon industry in Germany testing and experimental textile units have been set up. In Berlin there is a testing laboratory for the whole industry, Material Prufungs Anstalt. It is used not only for periodic tests by all producers to check their progress on developments and production but tests are required for the information of the industry dictator to check the activities of all producers.

In Wuttemberg there is a cotton and worsted experimental spinning plant, "Lehrspinnerai," which is also open to all producers. If a sample is going through a commercial mill, a control sample of the same lot is sent through this unit to check the results. If problems of technique are involved the machinery manufacturers may be called in to encourage the development of new machinery for particular purposes.

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*Presented at meeting of American Association of Textile Technologists, New York City, June 7th.

In working on this research, developments, and general improvement of rayon, they have felt the necessity for a quality control plan, and are now in process of evolving one. It is interesting to note that they have found tests of staple and yarn to be insufficient to tell the story of fabric quality. They have found also that tests of greige goods are not sufficient, and that only finished materials can be made the basis of quality control standards. When the plan is complete and standards are established it will, of course, be on an industry-wide basis.

The Rayon Industry in Italy

In Italy the same economical factors exist, with the same pressure on the textile industry to make and use rayon instead of the natural fibers. The difference is that, while there is governmental control of all industries, there is not the industry dictatorship nor the industry unified plan. Each company works out its own plans for production and technical developments, while the government helps with the markets.

In England and the United States

In both England and America rayon yarn and staple fiber take their place in free competition with the natural fibers without government pressure holding back one to help another. It is thought that the pending Cotton Act in England may react to the detriment of rayon; and in this country, with an avowed policy of taking from industry to give to the farmer, the threat of a processing tax is revived from time to time; but all in all the fibers stand on their own feet in both countries and compete on their own merits.

It is interesting then to ask, "Under these conditions, in what phase is the rayon industry of England and the United States as compared to Germany?" A study of progress made in the two English speaking countries indicates that without industry dictatorship, without concerted plans of the various producers, rayon has gone through a period of expansion and is now involved in concentrated technical development. The danger to staple fiber in the United States is that the third, or low price, phase may be forced by competition from low priced European staple before the second phase has been completed. The wisest part of Germany's plan seems to be the recognition of the principle that an industry cannot conduct research and development if sufficient return is not permitted on the product. The dangerous part of the program is that while maintaining prices at home they want to dump their product abroad.

These economic conditions are of interest in appraising fabric developments in the various countries. In the dictator countries we find a large number of fabrics in which rayon is used purely for substitution. For instance, oilcloth is made of rayon instead of cotton, whereas in this country there would be no point in using rayon in a material that would hide its usual merits without taking advantage of any of them. Many constructive fabric designs are to be found in each country and we must discriminate between that which is merely new and different and that which will contribute something to the market here.

CHARACTERISTICS

The concentrated research in the world rayon industry has brought about a number of interesting developments. Aside from the new types of synthetic yarns and fibers, there are a number of new products in viscose and acetate yarn and staple fiber. We might list the products and give their characteristics, but they each have some particular reason for being, and it probably will be clearer to study first the characteristics which are desired. Here you will need to use your discrimination, for there is more loose talk and ballyhoo on the seemingly scientific subject of characteristics than any other phase of rayon. In fact, like human characteristics, they frequently are the subject of just plain gossip.

Strength

Viscose yarn is stronger than acetate yarn and both are stronger than spun yarn made from the respective staple fibers. While the dry strength of both types of yarn in both processes is satisfactory for most wearing apparel and house furnishings, there are some quite broad textile fields where greater tensile strength of rayon will permit its wider use. For this reason there has been developed in this country two makes of strong viscose yarn for automobile tires. This rapon is specially prepared for the tire industry and as such is not suitable for the usual apparel uses of rayon.

Another strong viscose yarn is produced for general textile purposes where tensile strength and abrasive resistance are required. In coarser fabrics it is used in linings, particularly for fur and other heavy overcoats; for sports clothes, ski shirts, football pants, basketball trunks; for shirtings, alone or with spun rayon; and suiting materials in combination with spun rayon. In lighter fabrics it is used in full-fashioned hosiery, sheer woven dress goods, flat knitted materials, and lace. It also has a number of industrial and other textile uses where strength is important.

In England there has been developed recently a stronger acetate rayon yarn, which is even stronger than viscose. This yarn will be made in a new plant here according to announcements. This type is not to be confused with other new synthetic yarns of non-cellulose types.

In spun rayon strength is important in the cotton industry because of the fact that it is not as strong as filament rayon in the first place nor as cotton in the second. Here wet strength is important, for many spun rayon fabrics will show a dry fabric strength equal to cotton fabric but need additional wet strength to withstand laundering. To meet this demand a stronger viscose staple fiber has been developed in England which is finding increasing uses here.

Strength of spun rayon is a different proposition from strength of filament rayon. It is dependent on inherent tensile strength of fiber, fineness of fiber, length of staple, staple dispersion, cleanliness and freedom from nep, even-

(*Continued on Page 43*)

S. C. Carders and Spinners Discuss Mill Problems

THE Carders and Spinners' Section of the South Carolina Division of the Southern Textile Association held its regular spring meeting at the Franklin Hotel, Spartanburg, S. C., on Saturday, May 13th, beginning at 10 o'clock in the morning. There were approximately 275 mill men present, with Joe Lyons, Jr., of Orr Cotton Mills, Anderson, S. C., general chairman of the Division, presiding.

First on the program was an address by L. Mell Glenn, secretary of the Greenville Chamber of Commerce, on the state of the textile industry as well as other industry in South Carolina. Among a number of interesting statistics quoted in the talk, Mr. Glenn stated that of all industry in South Carolina, the textile industry has 72 per cent of the total employees and pays 76 per cent of the entire industrial payroll.

Following the talk by Mr. Glenn, Mr. Brice Waters, Administrator of the South Carolina Unemployment Compensation Commission, explained the workings of the Unemployment Compensation in its practical application. Admitting that the law was not perfect, he stated that every effort was being made to administer it to the best advantage of everyone concerned. There was some discussion on this law following Mr. Waters' talk.

The meeting then was turned back to Mr. Lyons, and a stenographic report of the technical discussion follows:

DISCUSSION ON CARDING

Chairman Lyons: Mr. Bob Stutts, superintendent of the Woodside Cotton Mills at Simpsonville, will lead the discussion on carding.

Robert T. Stutts, Supt., Woodside Cotton Mills Co., Simpsonville: Our time is short, and we will get down to the discussion at once. Looking over this list, I see that five questions have been selected from those sent in. The first one reads: *"What changes have you made in opening equipment or methods, during recent years, to secure better blending or better cleaning? What results were obtained?"*

We know that fifteen or twenty or twenty-five years ago a lot of people ran cotton through the bale breakers and then to the pickers and did not worry much about the kind of cloth obtained. Conditions are different now; the demands are higher, and we have to make better cloth. I see that a lot of print cloth mills are represented here, many of which have made changes in recent years. Many of those changes have been made very successfully, I know, and we should like to hear about them. Mr. McNeill, what changes have you made in your opening room?

T. M. McNeill, Supt., Monarch Mills, Union: Mr. Chairman, for a great many years we had the conventional type of opening equipment, consisting of two units: No. 4 bale breakers, tandem beaters, lattice-feed openers, and vertical openers. We thought we were not getting adequate mixing of our cotton from these two No. 4 bale breakers, with the apron on which we placed the cotton, for the reason that at all times we rarely had over three or four bales of cotton represented in those No. 4 hoppers. We took out the No. 4 and tandem beaters and put in the old type with six hoppers. We feed from six bales to the hoppers at all times and feel that we get much better blending.

Mr. Stutts: Do your feeders empty on to an apron?

Mr. McNeill: That is correct.

Mr. Stutts: What grade of cotton do you use?

Mr. McNeill: We are running strict middling Western cotton.

Mr. Stutts: And I believe you are making print cloths. Could you tell any difference in the appearance of your cloth after doing that? Did it in any way increase your breaking strength, or did it make any difference that you could notice?

Mr. McNeill: We felt that we got an evener yarn.

Mr. Stutts: I see Mr. Cudd here. Did you make any changes?

J. C. Cudd, Supt., Wallace Mfg. Co., Inc., Jonesville: Well, we went to the hopper and had the apron distributor. We carried it to our opener, cleaner, and on to our picker room. We find that it gives us evener work, and I think it increased our breaking strength. It is easier to work and easier to clean the pickers and the cards.

Mr. Stutts: Mr. Cudd, you feed about how many bales of cotton a day?

Mr. Cudd: About twenty-eight or thirty.

Mr. Stutts: How many bales do you put in the opening room at a time?

Mr. Cudd: We put in the whole sixteen hours' run and use just a handful off each bale. We have four hoppers, and we distribute that in the hoppers. We have one hopper for our waste, and it goes in.

Mr. Stutts: In other words, you feed your white waste from the card room back in in the opening room?

Mr. Cudd: Yes.

Mr. Stutts: Do you put it back into your regular hoppers?

Mr. Cudd: We have a hopper that we put it in.

Mr. Stutts: Do you put your drawing waste back in there, too?

Mr. Cudd: Yes, sir.

Mr. Stutts: Thank you very much.

I see that Mr. Hunt, from the Marion Mfg. Co., is here. We should like to hear from you, Mr. Hunt.

Mr. Hunt: I think we have done just about what Mr. McNeill said. We have three feeders, and we feed off twelve bales at a time. We did not take out the No. 4 bale breaker. We feed off thirty-six bales continuously. We find that it helps us in different ways.

Mr. Stutts: Where do you feed your reworkable waste, Mr. Hunt?

Mr. Hunt: We have a system of running it back into the main feed pipe.

Mr. Stutts: In other words, you have a hopper there in the opening room and it feeds back into the main line?

Mr. Hunt: Yes, sir.

Mr. Stutts: Do you feed your drawing waste there?

Mr. Hunt: All the waste.

Mr. Stutts: Do you run your drawing waste through a waste machine?

Mr. Hunt: No, we do not run it through a waste machine.

Mr. Stutts: Do you have any trouble when you run it with its stringing out into long strings? In other words, I have had the experience of its hanging up on the condenser pipe.

Mr. Hunt: Mr. Snoddy is here; let him answer that.

John M. Snoddy, Overseer Carding, Marion Mfg. Co., Marion, N. C.: What is the question?

Mr. Stutts: Do you have the experience, in reworking your waste, of its coming out in long pieces?

Mr. Snoddy: No, sir.

Mr. Stutts: A question has come up on which I do not know whether we can get any information or not. It is this: If a mill were to go from middling cotton to strict low middling, by what percentage would the waste be increased? Most cotton is graded by the amount of foreign matter in it. If you were to go from middling cotton down to strict low middling, what increase in foreign matter would you have? Mr. Gage, could you tell us that from your experience at Clemson?

Gaston Gage, Instructor in Carding and Spinning, Clemson College Textile School, Clemson: I could not give you the figures right off. The waste increases as you go down, and the lower the grades the greater the difference. There is not much difference between middling and strict low middling. The waste progressively increases, but I have forgotten the exact figures. I think it runs probably between 1.5 and 2 per cent on the cards and pickers, between middling and strict low middling.

Long Draft Roving Frames

Mr. Stutts: Thank you very much, sir.

We have to go on now, gentlemen. The next question is: *"What has been your experience with the long-draft roving frames? What effect have they had on breaking strength and ends down in the spinning room?"*

J. Z. Lancaster, Asst. Supt.. Pacolet Mfg. Co., Pacolet: We have one at Pacolet. We make 1.40 hank roving on the long-draft frame. On comparing that with the roving made by the regular process we find very little difference in ends down. We conducted tests on the breaking strength. We have one process of drawing. In making the comparison, 23s warp yarn made from intermediate roving broke about seven pounds more than the yarn made from the long draft roving. Then we tested the yarn made from two processes of drawing and intermediates, and it was about one pound more.

Mr. Stutts: Did you notice that on your spinning frames there is an increased amount of fly from yarn spun from long-draft roving, as compared to yarn made from regular-process roving?

Mr. Lancaster: No, I did not notice.

Mr. Stutts: A gentleman over here raised his hand. Who was that?

B. V. White, Jr., Ware Shoals Mfg. Co., Ware Shoals: We are just now getting into it. We have one mill on long draft. Some of the frames have been in for several months. So far as the breaking strength of the yarn is concerned, it is fully as good as that of the old three-process yarn, or a little better. There is some increase in fly in the spinning room. The number of ends down is about the same.

Mr. Stutts: What size is your frame?

Mr. White: Eight by four.

Mr. Stutts: What hank roving do you make on that?

Mr. White: 3.20.

Mr. Stutts: And you carry it to long-draft spinning. Is that right?

Mr. White: Long-draft spinning.

Mr. Stutts: What does that yarn break?

Mr. White: It has a break factor of 2100.

Mr. Stutts: That would be equivalent to about how many pounds?

Mr. White: About 60 pounds or a little better.

Mr. Stutts: How many of those long-draft frames have you installed?

Mr. White: Thirty-two.

Mr. Stutts: What is your drawing sliver?

Mr. White: About 50 grains.

Mr. Stutts: Are you running double or single in the spinning?

Mr. White: Double.

Mr. Stutts: Thank you very much, sir. Has anyone any questions on that, or can anyone give us any more information?

T. Henry Wood, Oconee Mills, Inc., Westminster: I have one long-draft slubber. That is 8 by 4. According to the information given, it is very similar to that of the gentleman at Ware Shoals. Our ends-down are about the same. We do find more fly.

Mr. Stutts: In that connection, we have two long-draft frames. We run that direct to the spinning. In the results we can tell very little difference.

A. H. Cottingham, Gen. Mgr., Victor-Monaghan Co., Greenville: What about the evenness of the yarn?

Mr. Stutts: As they say, you do have more fly; more fly accumulates on the frame. We did some testing on that, Mr. Cottingham; and, frankly, the breaking strength did not jump so very much. As to the evenness, by looking at it I could tell very little difference. You can easily fool yourself, however, so I should not want to be quoted as saying that it is just as good or just as even. I have not yet made up my mind on that.

Question: What roll covering do you use?

Mr. Stutts: We use cork.

Question: What about the twist?

Mr. Stutts: We had to put a little more twist in ours, it being a single strand. I could not give you the figures but it has probably two or three teeth more of twist in it.

Synthetic Roller Covering

Question No. 3 is: *"On long-draft, as well as on the conventional type of roving frames, compare synthetic roller coverings with the conventional roller coverings."* I think that question has been very well covered in other discussions, as to the conventional type, and unless someone particularly desires otherwise we will limit it to long-draft roving. What type do you have?

Mr. Lancaster: Cork. That frame came equipped with the synthetic roller covering.

Mr. Stutts: Did you find it satisfactory?

Mr. Lancaster: No. We had to have the rollers rebuffed about every two weeks.

Mr. Stutts: And you changed over to cork?

Mr. Lancaster: Yes, sir. We noticed at the end of two weeks it would be very uneven, so we changed over to cork.

Mr. Stutts: What type have you, Mr. White?

Mr. White: Cork.

Mr. Stutts: Mr. Lockman?

Frank D. Lockman, Supt., Monarch Mills, Lockhart: Cork.

Mr. Wood: We have cork.

Tinting Spun Rayon

Mr. Stutts: Question 4: *"If you wish to tint spun rayon for identification purposes, what is the best method?"*

Mr. Lyons, you have had a lot of experience along this line. How do you tint your rayon?

Mr. Lyons: We find it best to get a fugitive color and tint it. We spray it in at the back of the hopper.

Mr. Stutts: Will anyone else tell us something about that?

Mr. Stansell, Victor-Monaghan Co.: We do some of the tinting ourselves, but we do it in our dye plant, on the regular machines. Most of it we buy already tinted.

Processes On Spun Rayon

Mr. Stutts: We come now to the last question: *"How*

(*Continued on Page 42*)

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CHICAGO, ILLINOIS
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GREENVILLE, S. C.

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Ten Years of Cotton Textiles

THE eighth annual survey of the Association of Cotton Merchants of New York has the advantage of adjustment to the recently issued preliminary statistics of the Bureau of the Census on 1937 production of cotton textiles. Under "Market" heading, therefore, previous estimates of yardage production have been revised in conformance with this latest authentic record. (*See page 16 for chart.*) The peak of nearly 9,446 million square yards of woven cotton goods established for 1937 production again emphasizes the extraordinary ectivity of the industry in its banner production year.

1938 Operations Off 20½% From 1937

With general business depression following two consecutive years of large output, 1938 was predestined to be a period of inventory distribution and adjustment of production to reduced demand. Compared with 1937, the decline was over 20½%, which represents approximately two billion square yards. The brunt of this adjustment was in the first six months, when mills made strenuous efforts to correct an unwieldly supply situation in the face of declining economic conditions over the country. When demand from trade channels increased in late June, it was largely translated into production rather than improvement in price structure. Operations during the second half of the year were 22.4% greater than those of the first six months. Employment gained and there was a corresponding rise in the consumption of cotton, but the weight of 1937 stock accumulations kept prices on a depressed level.

Losses Predominate in Hand-To-Mouth Buying

Except in a few divisions of specialty merchandise and style products, widespread losses reported by individual units for 1938 testify to the sub-cost prices at which most of this business was done. Although consumer demand was well maintained, the single attraction of extremely low prices failed as sufficient incentive to stimulate inventory replenishment and forward commitments on the part of the trade. Consequently, the primary market was dominated by hand-to-mouth buying throughout the year, which witnessed a further depletion of inventories in the customary trade reservoirs.

Cotton Surplus Deters Market Activity

This reluctance of buyers to invest in merchandise beyond immediate needs was intensified by outside influences, particularly uncertaintities relating to the cotton surplus problem and the several European crises. The effect of the latter, of course, was general to all industry, but the impounding of most of the supply of cotton in Government loan stock has continued to be a major deterrent to normal trading operations in the primary markets for cotton goods. The consequences of cotton futures quotations at a considerable discount under nearby prices, though promoting an illusion of prospective lower costs for raw material, have served to warp buying judgment and prolong an already over-cautious psychology.

Potentialities of Advancing Costs

From the course of production and prices, it must be admitted that trade elements can so far justify their avoidance of unnecessary risk taking. Especially in the large divisions of staple goods, which normally account for over 50% of total woven goods production, market prices have shrunk to the lowest levels since the spring of 1933. However, actual cotton costs to the mills have advanced materially in recent months, due to the shortage of supply in commercial channels. Wage minimums, too, must rise 20% by statute in October, unless the larger increase of 30%, recommended by the Wage-Hour Law Committee, is made effective before then. With this additional pressure to the squeeze between mounting costs and destructive prices, either the markets must advance materially or mill operations slow down until the element of profit is restored in primary transactions.

Unprofitable Production Penalizes All

Sound market opinion questions the ability of the industry to continue the sacrificial performance of 1938. Without a reasonable margin of profit in its transactions, it can not fulfill its national services in the consumption of American cotton, the employment of a large population, and the supply of essential products. Fortunately, there is a growing recognition that restoration of confidence in market values is the keystone to a period of broader distribution.

Exports Improve—Imports Less

One important consequence of the low prices prevalent during the year was the largest yardage of piece goods exports since 1932. The gain was 83 million square yards over 1937, of which a considerable portion was from the Philippine market. Imports declined by 89 million square yards, making a net market improvement of around 172 million square yards. In both of these developments, it is probable that the continuing difficulties of the Japanese industry, in connection with the Chinese conflict, were an influential factor.

Plant Demolition Continues

Further contraction of the physical structure of the industry during 1938 was an inevitable consequence of profitless operations. While the loss of installed spindleage was less than in 1937, there has been an added decline of approximately 300,000 spindles in place from the first of the year up to the end of April, 1939. The latest reported total of 25,680,020 spindles in place is the minimum reported in thirty-three years. It compares with 25,811,681 reported for 1906, on the eve of physical expansion, to nearly 38 million in 1925.

Of even more significance in reflecting 1938 conditions

(*Continued on Page 35*)

Actual textile processing operations are simulated in the equipment used for testing textile chemicals at the Stamford Research Laboratories of American Cyanamid Company.

THE COMPLETE CHEMICAL SERVICE

In addition to all types of chemicals regularly used in textile processing, Cyanamid offers many interesting specialties. Let us demonstrate how you can put these to work to increase the efficiency of your production. Our technical representatives will be glad to cooperate with you in adapting the following products economically to your special requirements.

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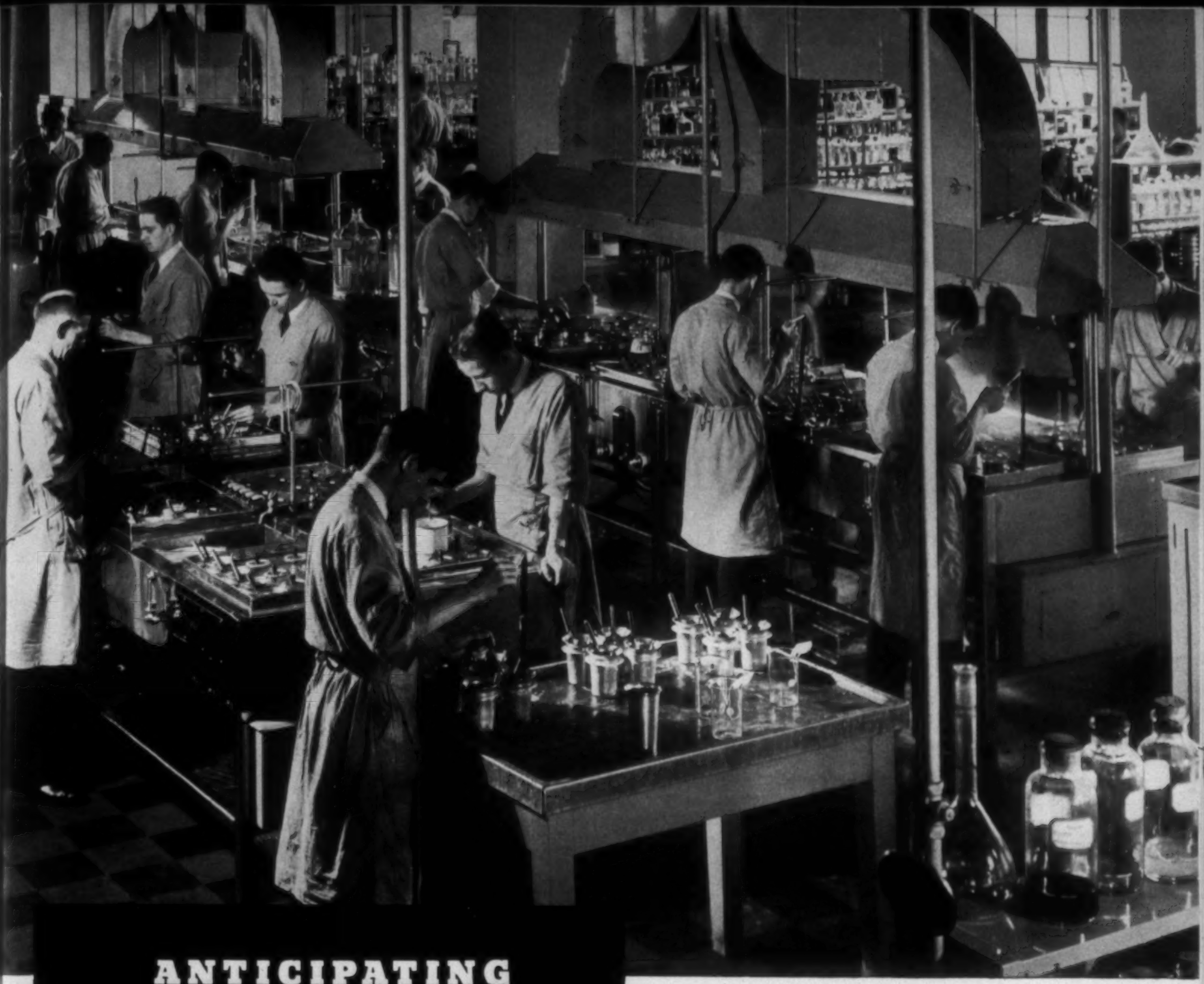
600 So. Delaware Ave., Cor. South St., Philadelphia, Pa.

TEN YEARS OF COTTON TEXTILES

Data assembled by The Association of Cotton Textile Merchants of New York from Bureau of The Census reports and information obtained through the courtesy of machinery manufacturers. Cloth production for the non-census or even years has been estimated to correspond to spindle hour activity during the preceding census years.

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939
EQUIPMENT											
Spindles in place at beginning of year............	35,267,086	34,541,486	33,608,494	32,326,526	31,442,174	30,938,340	30,889,484	29,253,444	27,700,194	26,704,476	25,986,620
Increase or decrease from preceding year	1,198,890	725,600	932,992	1,281,968	884,352	503,834	48,856	1,636,040	1,553,250	995,718	717,856
New installation, additions and replacements.........	320,784	251,936	205,068	143,908	348,568	529,840	214,874	469,316	772,724	178,280	
OPERATION											
Spindles active at any time during year ending July 31st	32,417,036	31,245,078	28,979,646	27,271,938	26,894,860	27,742,462	26,700,946	24,664,428	25,419,110	24,774,004	
Spindles idle during same period	2,850,050	3,296,408	4,628,848	5,054,588	4,547,314	3,195,878	4,188,538	4,589,016	2,281,084	1,930,472	
Average number of active spindles based on twelve monthly reports..........	30.408,548	27,269,470	25,674,107	23,250,757	24,873,270	25,119,435	23,421,150	23,373,147	24,079,936	22,042,442	
Intermittent spindles (*being the difference between average active spindles and those active at some time during year*)	2,008,488	3,975,608	3,305,539	4,021,181	2,021,590	2,623,027	3,279,796	1,291,281	1,339,174	2,731,562	
Percentage relation of average active spindles to spindles in place............	86.22%	78.95%	76.39%	71.92%	79.11%	81.19%	75.82%	79.9%	86.93%	82.54%	
Spindle hours run........	99,899,724,476	76,702,655,168	77,793,298,853	70,218,347,911	86,580,232,828	75,711,412,882	76,017,361,934	91,773,252,676	95,591,131,816	75,925,187,178	
Hours run per average active spindle............	3,285	2,813	3,030	3,020	3,481	3,014	3,246	3,926	3,970	3,444	
MARKET											
Production in square yards	8,398,616,000	6,448,392,000	6,955,391,000	6,278,222,000	7,866,040,000	6,878,579,000	7,135,276,000	8,613,837,000	9,445,736,000	7,502,168,000	
Exports in square yards...	564,444,000	416,285,000	366,959,000	375,446,000	302,042,000	226,306,000	186,565,000	200,501,000	236,251,000	319,634,000	
Imports in square yards...	61,185,000	35,517,000	34,732,000	29,436,000	41,348,000	41,533,000	63,674,000	114,195,000	147,320,000	58,282,000	
Available for domestic consumption	7,895,357,000	6,067,624,000	6,623,164,000	5,932,212,000	7,605,346,000	6,693,806,000	7,012,385,000	8,527,531,000	9,356,805,000	7.240,816,000	
Population at July 1st.....	121,526,000	123,091,000	124,113,000	124,974,000	125,770,000	126,626,000	127,521,000	128,429,000	129,257,000	130,215,000	
Available for per capita consumption in square yards...	64.97	49.29	53.36	47.47	60.47	52.86	54.99	66.40	72.39	55.61	



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How To Prevent Uneven Yarn

Following are further articles submitted in the contest on "How to Prevent Uneven Yarn." A total of 75 articles were submitted, and the winners will be announced as soon as the judges have had time to properly read the articles and judge their merit.

NUMBER NINETEEN

Introduction

All mill men should be keenly interested in this subject, for it constitutes a daily problem. Let me say in the very beginning that to my mind one of the best methods in prevention of uneven yarn is a wide awake, alert overseer. One who has trained himself to be constantly on the lookout for small things, and to get this Idea across to those under his supervision. It is better to train ten men in this respect than to be able to do the work of ten men himself. The overseer today who is able to accomplish the above with thoroughness will be among the leaders of tomorrow.

Cotton and Cotton Buying

Some of the causes of unevenness goes back to a factor over which the mill has but little control; namely, the growth, clutivation, and ginning of the cotton. I shall not attempt here to tell how to raise or gin cotton, but there is a wide field of opportunity for better co-operation with the mills in this respect.

A good cotton buyer is another great help in the prevention of uneven yarn. He should grade and staple every bale and see that the mill is getting the grade and staple of cotton that they want and are paying for.

Opening and Mixing

Open as many bales for each mixing as floor space will allow. Feed a small amount from each of these bales at one time to give an even blend. Keep the hoppers about 2/3 full at all times. Set the grid bars and adjust the speeds of the beaters on the vertical openers or other type of cleaners to take out the maximum amount of foreign matter and short fibers.

Temperature and Humidity

These play an important part in the production of even yarn. After determining the proper amount of temperature and humidity for each department, set the controls accordingly. See that both the humidity and temperature remain at a constant and uniform degree.

Pickers

Too much stress can not be laid upon the care and operation of pickers. Just an inch or two of unevenness at this point grows to an alarming proportoin after having reached the spinning. Give the machines a periodic overhauling. Keep all working parts well lubricated. Determine the proper beater speeds to suit the grade, staple and production requirements of the mill. Use only enough air draft to deposit the cotton evenly on the screens. A tolerance of ¼ lb. each way is ample allowance for lap weights. The consistent use of a lap weight indicator will be of great benefit in keeping the counts on the number. Adjust the tension release on the lap roll to make a soft, bulky lap, as the expansion from a tightly wound lap will cause stretch and unevenness. The following things will cause unevenness and should be carefully looked after: Uneven feeding of cotton to the picker, evener not working freely due to lack of oil, lack of cleaning, belt not adjusted to proper tension, and stiff evener belt. Belt not adjusted to center of cone, lumps and chokes in the machine, poorly regulated air currents, and worn gears, studs, bearings, etc. The overseer should check the pickers several times daily and have corrected anything which is preventing the machine from turning out a smooth, even lap.

Cards

Assuming that we have the proper clothing, draft, speed, and a conservative production. The wire must be kept sharp, the licker-in in good shape and set as close as the staple will allow. Cards should be ground every 15 to 20 days and the grinder roll recovered after grinding 10 cards. At the time of grinding all settings should be carefully checked. Every card should take out as nearly the same amount of waste as possible. Keep a slack tension between the comb and calender roll. Keep the cards clean so that trash and other foreign matter will not get into the stock.

In stripping the best method is to strip every other card, wait about an hour, then strip the other half. Let the card run a while after stripping with the end down until the sliver weight becomes normal, then piece the end up. The card tender should be trained to handle the laps carefully so as not to tear or split them in any way. In making the splice while lapping the card it should be as nearly the same thickness as the lap as possible to avoid thick and thin places in the sliver. Watch up the laps and if any split, have the bad work removed at the front of the card. Don't run the cans too full.

Drawings

Have the proper speed, draft, and tension. Set the rolls as close as the staple will permit. Keep the stop

(*Continued on Page 40*)

Perkins Quality Rolls

NO CALENDER CAN BE BETTER THAN THE ROLLS IN IT

Perkins roll shop is the largest in the world.

Perkins organization is always prepared to build your rolls to meet exactly your production requirements.

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SILK CALENDERS
CLOTH PILERS
DRYING MACHINES
JIGS
MANGLES

MULLEN TESTERS
PADDERS
SQUEEZERS
WASHERS
WINDERS

Mt. Holly Golfers Take Top Honors in First Annual Tourney

- **105 Players, Including Nine Mill Teams, Enter Annual Southern Textile Golf Tourment, the first event of its kind ever staged in the South.**

HAROLD THOMAS, promising young sharpshooter from Mt. Holly, and member of the American Yarn & Processing Co. team, won the championship of the first annual Southern Textile Golf Tournament staged by Textile Bulletin and Southern Knitter, in a hard earned 2-1 victory over R. F. Bumgardner, loom fixer of National Weaving Company, Lowell. Thomas is a worker in the winding room.

Martin Michael, who works in the packing room at the American Yarn & Processing Co. at Mt. Holly, N. C., won medal honors with a 73, and also the prize for the fewest number of putts in a playoff with Karl Ginter, president of the Industrial Dyeing Corp., Charlotte, N. C., the two players tieing with 26 putts each in the qualifying round.

Still another piece of silver went to the American Yarn & Processing Co. quartette for the low team score. The two other members of the team, which had a total score of 318, were Marshall Davenport and Charles Rhyne.

Permanent trophies for the individual and team championships were donated by the two Clark publications and the American Cotton Manufacturers' Association, respectively, and will be kept on display at the Clark Publishing Company office. The 1939 winners, in addition to having their names engraved on the large trophies, received small replicas.

Salesmen's Division

Ed. Reid, of Charlotte, representative of Sonoco Products Company, took top honors in the salesmen's division, defeating Brick Smith, of the Shelby Supply Company, 1 up in the finals of the championship flight.

Smith was medalist in this division with a 74, and Charles Kelley, of Borne-Scrymser Company, won the prize for the fewest number of putts in the qualifying round in a three-way tie playoff with Harold Pierce, of Solvay Sales Corporation, and Peter Gilchrist, of the Charlotte Chemical Laboratories. Each of the three required only 27 putts for the 18 holes.

The tournament, which attracted mill officials, operating executives and operatives from three Southern textile States, was played June 9th, 10th and 11th over the sporty Carolina Golf Club 18-hole championship course in Charlotte, where the event will probably be staged again next year. The field included nine mill teams and numbered 105 players, composed of 66 mill men and 39 salesmen. As a start, this number was exceedingly gratifying to the sponsors, and it is believed that the interest manifested this year and the satisfaction expressed over the way in which the affair was handled, portends a much larger field in 1940.

Tough for the "Bosses"

That high mill executives found the going pretty tough against the smooth swinging youngsters who were entered, is evidenced by the fact that none of the flights was won by them, and N. G. Hardie, general superintendent of Chadwick-Hoskins Mills, and John Shumate, superintendent of Leaksville Woolen Mills, were the only two of the higher-ups to reach the finals. In fairness to the executives, it should be stated that they were greatly outnumbered, but if they hope to take home some of the silver next year, the results of this tournament would seem to indicate the need of some very serious and consistent practice between now and that time.

Prizes Donated

In addition to the two trophies mentioned above, the following prizes were donated: silver bowl, for the runner-up in the mill men's championship flight, by Frank Coker, of the Rayon Division of E. I. DuPont de Nemours & Co. silver platter, for the fewest number of putts in the mill men's division, by L. E. Taylor, of National Ring Traveler Company; silver bowl for medalist in the mill men's division, by Falls L. Thomason, of N. Y. & N. J. Lubricant Co.

Other flight prizes, consisting of silver and golf equipment, were furnished by Textile Bulletin and Southern Knitter.

The sponsors are indebted to Bill Ray, of the Carolina Aniline & Extract Co., Sut Alexander, club owner, and L. E. Taylor, of the National Ring Traveler Company, for valuable help in handling the tournament details.

Final results in the other flights and complete details of the play follow:

Finals

MILL MEN'S DIVISION

Championship Flight: Harold Thomas, American Yarn & Processing Co., Mt. Holly, defeated R. F. Bumgardner, National Weaving Co., Lowell, N. C., 2 and 1.

First Flight: W. M. Cooper, Kendall Mills, Paw Creek, defeated M. K. Davenport, American Yarn & Processing Co., Mt. Holly, N. C., 3 and 1.

Second Flight: T. R. Brown, Cramerton, defeated L. C. Morrow, National Weaving Co., Lowell, N. C., 5 and 4.

Third Flight: Vernon Reece, Cramerton defeated E. B. Powell, Gossett Mills, Anderson, S. C., 3 and 2.

Fourth Flight: Kenneth Ware, Kannapolis, defeated John Shumate, Leaksville Woolen Mills, Homestead, N. C., 2 and 1.

Fifth Flight: R. H. Hall, Springs Cotton Mills, Lancaster, defeated N. G. Hardie, Chadwick-Hoskins Co., Charlotte, N. C., by dfault.

Sixth Flight: Everett Isenburg, Great Falls, S. C., defeated Webb Hopper, Great Falls, S. C., 2 and 1.

Seventh Flight: Stephen H. Gibson, Great Falls, S. C., defeated J. M. Proctor, Mooresville Cotton Mills, 3 and 2.

SALESMEN'S DIVISION

Championship Flight: Ed Reid defeated Brick Smith, 1 up.

(*Continued on Page 38*)

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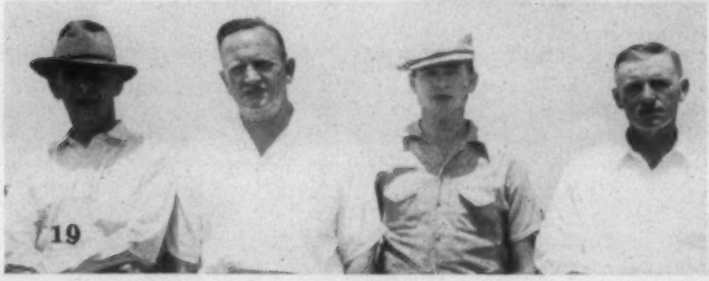
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1. Group at Tournament Headquarters—L. E. Taylor facing camera.
2. Frank Stough, secretary and treasurer of Cornelius Cotton Mills, Cornelius, N. C.
3. "Skinny" Warrington, W. A. Kennedy Co., Charlotte.
4. Bill Terrell, Terrell Machine Co., Charlotte.
5. Chas. Gunter, manager Mooresville Cotton Mills, Mooresville; "Toots" Causey, Solvay Sales Corp., Charlotte; Irvin Hoffman, Jr., Sandoz Chemical Works, Charlotte; J. M. Proctor, overseer of carding, Mooresville Cotton Mills, Mooresville.
6. R. A. Geer, personnel department, The Kendall Co., Charlotte.
7. N. G. Hardie, general superintendent, Chadwick-Hoskins Co., Charlotte, got over 250 yards on that one.
8. Martin Michael, American Yarn & Processing Co., Mount Holly, medalist in mill men's division; "Brick" Smith, Shelby Supply Co., Shelby, medalist in salesmen's division.
9. Ed. Reid, Sonoco Products Co., Charlotte, winner of the salesmen's division.
10. Harold Thomas, American Yarn & Processing Co., winner of the mill men's division.
11. Leroy Reece, member of the Cramerton Mills team, demonstrating the form that landed him in the champion flight.
12. Bill Ray, Carolina Aniline & Extract Co., Charlotte—A big help in running the tournament.
13. T. W. Church, Jr., manager and secretary, Highland Park Mfg. Co., Charlotte.
14. View of the silver and other golf prizes.
15. T. M. Whitener, president and treasurer, Whenball Hosiery Mills, Newton; June Gaither, president and treasurer, Ridgeview Hosiery Mill Co., Newton.
16. C. Rhymer, superintendent, Chadwick-Hoskins Plant No. 4, Charlotte; Weldon Rogers, overseer of weaving, Chadwick-Hoskins Plant No. 2, Charlotte.
17. H. L. Siever, Borne Scrymser Co., Charlotte; W. L. Miley, Jr., superintendent, Erwin Cotton Mills No. 2, Erwin; Ed. Reid; Art Thompson, Ciba Co., Charlotte.
18. Republic Cotton Mills team, Great Falls, S. C. Reuben Gibson, Everette Isenburg, Webb Hopper, Stephen Gibson. Isenburg and Stephen Gibson won flights Nos. 6 and 7, respectively.
19. R. H. Hall, engineer, Springs Cotton Mills, Lancaster, S. C.; Ed. Reid (again); Vernon Reece, Cramerton Mills, winner of third flight in the mill men's division; L. H. Beatty, Cramerton Mills, Cramerton.
20. R. F. Bumgardner, National Weaving Co., Lowell, runner-up in championship flight; G. W. Rockett, member National Weaving Co. team; H. O. Pierce, Southern manager, Solvay Sales Corp., Charlotte.

Personal News

M. B. Wallace has become assistant manager of the Nebel Knitting Company, Inc., Charlotte, N. C.

J. E. Cannon has been promoted to general overseer of weaving at the Moultrie (Ga.) Cotton Mills.

Leon A. Stanley, Jr., Auburn graduate in Textile Engineering is now employed at Linen Thread Company, Inc., Blue Mountain, Ala.

C. E. McCaw, treasurer of the Cutter Manufacturing Company, Rock Hill, S. C., has been named office manager of the company.

C. J. Ashmore, of Burlington, N. C., has been named manufacturing superintendent of the Cutter Manufacturing Company, Rock Hill, S. C.

Elbert Pride has been appointed superintendent of the Taylor Mill of the Bibb Manufacturing Company. He was formerly overseer of finishing.

F. M. Houser, president of the Rhyne-Houser Manufactoring Company, Cherryville, N. C., and Mrs. Houser have recently been on a trip to Bermuda.

Thomas J. Mallon, formerly vice-president and secretary, has been elected treasurer of the Burlington Mills Corporation, succeeding E. F. Addiss, resigned.

N. Harris, textile chemist at Burlington Dyeing & Finishing Company, Burlington, N. C., and Miss Christine Hooper, of Burlington, were married recently.

J. L. Rheinhart, formerly with the Clover Spinning Mills, Inc., Clover, S. C., is now overseer of spinning and winding at the Chronicle Mills, Belmont, N. C.

Lewis T. Rogers, Son of H. B. Rogers, Parks-Cramer Company, Charlotte, N. C., was recently awarded the coveted rank of Eagle Scout in the Boy Scouts of America.

S. J. Holmes has been promoted to assistant superintendent at the Moultrie (Ga.) Cotton Mills.

J. F. Wright has resigned as overseer of spinning at Chadwick-Hoskins Mill No. 4, Charlotte, N. C.

George C. Shuford, treasurer of the Cliffside Mills, Cliffside, N. C. was recently electer to the advisory committee of the North Carolina Industrial Safety Conference.

R. A. McCraney, formerly at the No. 2 Plant of Chadwick-Hoskins Company, has been transferred to the position of overseer of spinning at the company's No. 4 Plant, at Charlotte, N. C.

E. A. Smyth, 3rd vice-presdent of Balfour Mills, Balfour, N. C., was recently appointed to the advisory committee of the Industrial Safety Conference of North Caroline.

O. E. Steinback, vice-president of the Florence Mills, Forest City, N. C., has been appointed to the advisory committee of the Industrial Safety Conference of North Carolina.

Carl Duncan, for many years superintendent of the Pendleton, S. C., plant of the Gossett Mills, has been transferred to Anderson to become superintendent of the Riverside Mill of the Gossett chain.

Henry Harrison is now overseer of finishing at the Taylor Mill of the Bibb Manufacturing Company, succeeding Elbert Pride, who has been promoted to the position of superintendent of the mill.

R. B. Fuller, of the Sayles Biltmore Bleachery, Biltmore, N. C., was one of the principal speakers on the topic of "Maintain Intesest in Safety," at the recent State-wide industrial safety conference in Raleigh, N. C.

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Uniform in Quality
Uniform in Size
Uniform in Finish
NEW ENGLAND BOBBIN & SHUTTLE CO.
NASHUA NEW HAMPSHIRE

C. L. Fields has been transferred from 2nd shift to 1st shift spinning, as second hand, at the Greenwood (S. C.) Cotton Mill.

S. A. Summey, superintendent of the Alexander Manufacturing Company, Forest City, N. C., has recently been elected mayor of Alexander for the 8th consecutive time.

Robert R. West, president of Riverside and Dan River Cotton Mills, Danville, Va., has been appointed by the governor to serve in an advisory capacity on the legislative budget board.

Marshall Stone, for the past five years superintendent and manager of the Pacolet Mill at New Holland, Ga., has been made a vice-president of the Pacolet Manufacturing Company. He will continue his present duties, and in addition, look after the other two Pacolet mills in South Carolina.

Alexander D. Graham, textile chemistry student from Rock Hill, S. C., has recently been appointed Cadet Commander of the Clemson College R. O. T. C. Brigade. This is the highest honor obtainable by an R. O. T. C. Cadet.

W. T. Morton has become superintendent of the spinning, spooling, and warping division of the Borden Mills, Inc., Kingsport, Tenn. He was formerly associated with the Florence Mills, American Spinning Company Division, Greenville, S. C.

G. H. Mahaffee, of Danville, Va., formerly salesman for Slip-Not Belting Corporation, is now overseer of carding and spinning at the Alexander Manufacturing Company, Forest City, N. C. Mr. Mahaffee is a graduate of N. C. State College.

B. B. GOSSETT

President and Treasurer of Chadwick-Hoskins Company, Charlotte, N. C., and the Gossett Mills of South Carolina, was recently awarded the honorary degree of Doctor of Textile Science at the Commencement exercises at North Carolina State College, Raleigh, N. C.

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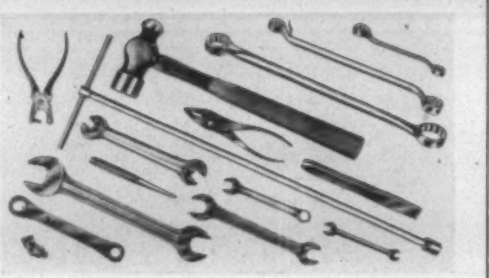

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39 Receive Textile Degree At Exercises At Clemson College

Clemson, S. C.—At commencement exercises at Clemson College Governor Burnett R. Maybank was the principal speaker. Thirty-nine received the B.S. Degree in Textiles from Clemson Textile School. They are as follows:

Textile Engineering: H. C. Avinger, Orangeburg, S. C.; Harold W. Boozer, Columbia, S. C.; R. W. Boys, Tuxedo, N. C.; R. H. Burton, Anderson, S. C.; F. E. Culvern, Jr., Kershaw, S. C.; A. M. Evans, Abbeville, S. C.; H. E. Foster, Pendleton, S. C.; J. B. Frazier, Blair, S. C.; W. F. Gates, Jr., Anderson, S. C.; Zack Gray, Gray Court, S. C.; W. T. Henderson, Jr., Greenville, S. C.; W. P. Irwin, Spartanburg, S. C.; E. M. Jones, Greenville, S. C.; B. H. Keitt, Newberry, S. C.; E. M. Loyless, Greenwood, S. C.; J. P. Maroney, Fountain Inn, S. C.; W. H. Monckton, Jr., Columbia, S. C.; J. B. Montgomery, Spartanburg, S. C.; P. F. Pearson, Savannah, Ga.; J. H. Radcliff, Aiken, S. C.; H. G. Salley, Buffalo, S. C.; J. E. Simpkins, Jr., Columbia, S. C.; A. W. Smith, Jr., Anderson, S. C.; J. G. Smith, Clearwater, S. C.; L. C. Smith, Greenville, S. C.; J. E. Sullivan, Anderson, S. C.; J. N. Talbert, Troy, S. C.; W. H. Thackston, Anderson, S. C.; E. H. Thomas, Greenwood, S. C.; F. A. Thompson, Williston, S. C.

Textile Chemistry and Dyeing: T. D. Fulmer, Saluda, S. C.; C. J. Gormerly, Providence, R. I.; R. A. Guy, Chester, S. C.; T. H. Heatwole, Arlington, Va.; S. P. Patterson, Seneca, S. C.; J. K. Smith, Bloomfield, N. J.

Weaving and Designing: R. G. Carson, Jr., Orangeburg, S. C.; H. H. Cosgrove, Jr., North Augusta, S. C.; L. E. Waters, Savannah, Ga.

Of the 39 candidates listed above, 31 have been placed in the industry. Dean Willis states that Clemson Textile School has more calls for this year's graduates than it has candidates for degrees. Therefore, all of the textile graduates will no doubt be placed within one or two weeks after graduation.

Joseph Gordon Smith was awarded the National Association of Cotton Manufacturers' Honor Medal given to the Student making the highest scholastic record in textiles. Mr. Smith is from Clearwater, S. C., where he has had some practical textile experience. He will work with Bibb Manufacturing Company, Columbus, Ga.

J. K. Smith, of Bloomfield, N. J., was given the Textile Colorist Award for 1939 for outstanding work in textile chemistry and dyeing.

Textile Student Awarded Medal

Raleigh, N. C.—During the annual Scholarship Day exercises at North Carolina State College on May 4th, the medal awarded annually by the National Association of Cotton Manufacturers to the most proficient Textile student in the graduating class was presented to Walter Lee Fanning of Shelby, N. C.

In order to qualify for this medal, Textile schools must be of recognized standing and fully equipped to give instruction in the design and manufacture of cotton products, and there must be at least four competitors for the medal. The Textile School at North Carolina State College has met these requirements for thirty years. Col. J. W. Harrelson, Dean of Administration, commented that Mr. Fanning was the third native of Shelby to be awarded this medal. In 1908 the first medal was presented to Maurice Hendrick, who is now vice-president and general manager of the Cliffside Mills at Cliffside, and in 1923 it was awarded to George T. Bostic, who is now assistant superintendent of P. H. Hanes Knitting Company, Hanes, N. C.

Walter Fanning has been an outstanding student in Textile Manufacturing for four years. He is a member of the tennis team and this year has served as vice-president of student government, and as a student assistant in the Department of Yarn Manufacture.

Mr. Fanning has accepted a position with the Dover group of mills at Shelby.

A. B. Carter Library Shelf

Taylorsville, N. C.—Following a recent meeting of the board of trustees of the Alexander County Library, Mrs. R. S. Ferguson, chairman of the board, announced that the trustees had authorized the installation of a shelf of reference books to be known as the A. B. Carter shelf. This was done in appreciation of the help Mr. Carter, ex-mayor of Taylorsville, has given the library. Many of the reference books were donated by him, and he has been one of the most liberal contributors since its beginning three years ago.

Textile Institute Cited for Its Cotton Program

Washington, D. C.—The Cotton-Textile Institute is among nine trade associations to receive special awards for "outstanding achievement," it was announced at the twenty-seventh meeting of the United States Chamber of Commerce.

The Textile Institute was designated for special commendation for extending its program to many small textile mills, for organizing the National Cotton Council and in expanding the domestic and foreign use of American cotton goods.

Awards of merit were presented by Edward J. Noble, acting under Secretary of Commerce, at the Annual American Trade Association executives' meeting held in conjunction with the Chamber of Commerce conclave.

The award was made to the Cotton-Textile Institute, Mr. Noble said, "for its achievement in handling the destructive cheap-wages competition of a foreign nation; also in expanding the domestic and foreign use of American cotton goods, through bringing together all factors in this basic industry." The citation continued: "Financing was accomplished through a "cent-a-bale" method, in which cotton shippers and textile mills participated. A National Cotton Council was organized, and effective promotional activities were carried on in which the whole industry participated. Due to the success of the 1937-38 campaign, scores of smaller textile mills have recently joined the original participants in the financing of a program for the present year of 1939."

Loans On Cotton Now Total $205,161,811

Washington.—Commodity Credit Corporation announced that "advices of cotton loans" received by it through June 8, 1939, showed loans disbursed by the corporation and lending agencies of $205,161,811 on 4,478,385 bales of cotton. This includes loans of $5,352,661 on 117,823 bales which have been repaid and the cotton released.

The loans average 8.85 cents per pound.

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6 REPAIR SHOPS
FALL RIVER, PHILADELPHIA, CHARLOTTE, GREENVILLE, ATLANTA, DALLAS

7 DISTRIBUTING POINTS
FALL RIVER, WORCESTER, PHILADELPHIA, CHARLOTTE, GREENVILLE, ATLANTA, DALLAS

ASHWORTH BROS., INC.
Woolen Div., AMERICAN CARD CLOTHING CO.
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Southwestern Representative: Textile Supply Co., Dallas, Texas
★PRODUCTS AND SERVICES: Card Clothing for Cotton, Wool, Worsted, Silk and Asbestos Cards and for All Types of Napping Machinery • Brusher Clothing and Card Clothing for Special Purposes • Lickerin Wire and Garnet Wire • Sole Distributors for Platt's Metallic Wire • Lickerins and Top Flats Re-clothed.

TEXTILE BULLETIN

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Always For The Communists

Frank P. Graham, president of the University of North Carolina, and Paul Green, a man who lives at Chapel Hill, N. C., and writes inferior plays designed to reflect upon citizens of North Carolina, have appealed to Gov. Clyde Hoey to pardon a convict named Fred Erwin Beal.

There have been many convicts in the penitentiary of North Carolina but it is not on record that either President Graham or Mr. Green have sought the pardon of others and there is no escaping the conclusion that their interest in saving Fred Erwin Beal from further punishment is that he is a communist and that they do not believe that communists should be punished for crimes.

One summer President Graham sponsored a Summer School at the University of Moscow and defended his action upon the grounds that academic freedom demanded that young people be permitted to study communism.

However, he forgot academic freedom the next summer when he signed a protest against allowing American athletes to attend the Olympic Games in Germany upon the grounds that while there they might learn something about the Nazi doctrines . The Nazi had just stopped the march of communism across Europe and had incurred the hatred of the communists.

President Graham assisted in securing aid in the United States for the so-called loyalists in Spain and joined in a demand that the arms embargo be lifted so that the loyalists might continue the fight against General Franco. That was just before the exposure which showed that the loyalists were about 90 per cent communists and had been financed by Russia.

The above is interesting in view of a trial which is now in progress at Barcelona, Spain.

Hundreds of witnesses have testified that, in an attempt to wring from them evidence relative to the military plans of General Franco, the Loyalists imprisoned them in crazily decorated misshapen prison cells.

The walls of "torture chambers" were painted with weird, big and little, black and white cubes and multi-colored circles, which constantly seemed to change shape before the eyes, and many prisoners lost their minds.

The cells were described as hollow cement blocks four feet high and containing a cement chair and bed, built in a slanting position so that it was impossible for a prisoner to sit or lie down for more than a minute at a time. Raised cement blocks were arranged in a crazy-quilt fashion on the floor to prevent prisoners from standing.

It has been testified that more than 2,000 men and women were subject to these tortures by the communists who had seized Spain and called themselves Loyalists, but President Graham is one of a group who helped organized aid for them during the war and attempted to have the arms embargo lifted so that they could continue the war which, according to evidence, also meant the continuation of the tortures described above.

There is no escaping the conclusion that President Frank Graham is always for the communists and his demand that Beal he freed is just another link in the chain.

Fred Erwin Beal was a racketeer who came to Gastonia and in his effort to build a dues paying organization caused a great deal of trouble.

The shots which killed Chief Aderholt came from a miniature fort which had been built by Beal. There were loopholes which had no other purpose than to permit guns to be stuck through them, and there were pedestals upon which men were to stand while firing the guns. In the hut, and being paid salaries by Beal and his organization, were a number of professional gunmen and thugs who had been brought to Gastonia from Northern points.

A man cuts loopholes for guns and hires a lot of professional gunmen to handle the guns, and as the result of that preparation Chief Aderholt of the Gastonia police was killed while standing upon the sidewalk and without having fired a shot or threatened to fire one. Presumably because the man who prepared the death trap for Chief Aderholt is a communist, President Frank Graham and his apparently weak-minded associate, the so-called playwright Paul Green, say that he should be pardoned.

Fred Erwin Beal fled after the killing of Chief Aderholt and was captured in South Carolina. He again fled while out on bond and was not captured for several years, some of which he spent in Russia.

During the time of the trouble which Beal promoted at Gastonia, Frank Graham was professor of history at the University of North Carolina and received a salary for teaching history. A man who was in his class at that time states to us that during the entire Gastonia trouble Frank Graham never taught a word of history but devoted every class period to denunciations of the mill men of Gastonia and praise for Fred Erwin Beal and his communist organization.

North Carolina newspapers have expressed some surprise that President Graham has urged that Fred Erwin Beal be saved from further punishment but when has he ever failed to be found upon the side of the communists?

Our Textile Golf Tournament

Our first Annual Southern Textile Golf Tournament, held at the Carolina Golf Club, Charlotte, N. C., on June 9th, 10th and 11th, was a distinct success.

Playing in the mill men's division were mill treasurers, purchasing agents, general superintendents, construction foremen, overseers, loom fixers, slasher tenders, fixers, winding and packing room hands and weavers. There were two knitting mill presidents but no cotton mill presidents. K. P. Lewis, president of the Erwin Cotton Mills, and the American Cotton Manufacturers' Association, and Herman Cone, president of the Proximity Manufacturing Company, would have entered but Mr. Lewis had to attend a daughter's graduation in Virginia and Mr. Cone had a business engagement in New York.

The championship was won when a winding room hand from Mt. Holly, N. C., defeated a loom fixer from Lowell, N. C.

A weaver won the first flight by defeating a packing room overseer.

A loom fixer won the second flight by defeating another loom fixer.

An overseer of winding defeated an overseer of cloth room in the third flight.

A sewing room overseer defeated a woolen mill superintendent in the fourth flight.

A construction foreman defeated a second hand hand in spinning in the second round and then won by default in the fifth flight when a general superintendent found that he could not play the final match.

In the sixth flight a section man defeated a slasher tender from the same mill and in the seventh flight a weaver defeated an overseer of carding.

A packing room hand won the low medal with a 73 and, having tied the president of a dyeing company for the lowest number of putts, defeated him in the play-off.

Our Textile Golf Tournament demonstrated two things:

(1) The friendly relations which exist between the employers and employees in Southern textile mills.

(2) That the cotton mill employees of the South are not so down trodden that they do not play and enjoy golf.

The *Charlotte Observer*, in commenting upon our golf tournament, said in part:

> Mill employees have been demonstrating in this event that they can play this ancient game with a finesse that has sent some of their employer competitors in defeat to the showers.
>
> And it has revealed that mill owners and managers and employers, paired with their operatives, have joined heartfully and pleasurably in this camaraderie on the links, taken the event seriously and derived from it an association and an understanding which few other contacts could have provided.
>
> This tournament is only an evidence of the kindly feeling that generally pervades the attitudes of employers and employees in this great industry.

There were 67 mill men and 38 salesmen entered in this tournament and a man who watched it for two days said:

"Next year you will have over 200 entries and every year after that you will be forced to limit the entries to keep it from being too large."

Southern Textile Association

During the past year the Southern Textile Association has continued its fine educational work and many interesting and well attended divisional meetings have been held.

The cotton mills of the South have never fully realized the service which has been rendered by the Southern Textile Association since its organization in 1908. Many a mill has been benefited by information which its superintendents and overseers have acquired at division meetings of the Southern Textile Association.

The discussions at the division meetings not only result in the dissemination of textile information but inspire study and research.

Mill News

Lowell, N. C.—Norlina Cotton Mill, yarn plant which operated for six years on East Franklin avenue, Gastonia, N. C., has moved to Lowell and operations have already begun at its new location, J. Lander Gray, Jr., vice-president and general manager, announces.

The plant occupied by the Norlina at Lowell is the old United Spinners No. 1 building, recently vacated by United Spinners, Lowell corporation.

Greensboro, N. C.—Charles W. Angle, Inc., contractors, have been awarded contract by Burlington Mills, Inc., for erection of an addition to the central office of the concern at intersection of Eugene and Bellemeade streets here. The addition will cost approximately $20,000.

The addition will include a one-story structure atop the present office building, and will be of stone and steel type. The designer is Leon McMinn, architect.

Enoree, S. C.—New equipment costing around $75,000 is being installed in the Riverside Mill here, according to a recent announcement.

The equipment, which consists of two high-speed automatic spoolers of 180 spindles each and two warpers, is of the latest and most perfected type.

Heretofore around 100 spoolers, warpers and creelers have been used at the Riverside Mill, while now half of this number can perform the same work.

Hickory, N. C.—The Hickory Dyeing & Winding Co. is building its yarn plant in the Highland section of the city. The building will be two stories high.

The plant will produce double-resist and acetate yarn to be used in hosiery, bedspreads, tapestries and other materials, according to George Hall, Jr., president of the company.

Other officers include: Cecil J. Perkins, of Lynchburg, Va., vice-president; Donald Hutton, secretary, and H. Grady Miller, treasurer. The plant will be ready for operation early in July.

Cumberland Homesteads, Tenn.—Nylon, du Pont's new synthetic yarn, may be used in the new full-fashioned hosiery mill to be operated here by the Dexdale Hosiery Mills, of Lansdale, Pa.

A communication recenved by the Cumberland Co-Operative Co. from the Dexdale Company recommends that the $60,000 worth of silk throwing machinery originally planned for the Cumberland Mill be not purchased at this time. It was further recommended that the mill start with a number of Wildman single-head knitting machines in experimental work with the new silk for the purpose of training local operators.

Jackson, Ala.—The first of 24 full-fashioned silk hose machines to be installed in the new Jackson plant of the Clarke-Washington Industries Corp. have arrived here and will be pleaced in operation as soon as installed.

Meanwhile, preparations are going forward to hold a civic celebration here June 22nd, at dedicatory exercises for the new hosiery mill. Some of the State's leading industrialists and men prominent in other lines of endeavor have been invited to speak in the high school auditorium on a program that will last from 10 a. m. to 1 p. m.

At its conclusion, a luncheon will be tendered stockholders of the corporation at the new mill building, attended by dedication of a plaque commemorating its establishment here.

South Pittsburgh, Tenn.—Representatives of the Star Woolen Co., of Cohoes, N. Y., were here recently to inspect the buildings and plant of the old Aycock Hosiery Mills as the possible site of a woolen plant in the South.

S. J. Stein, vice-president, and H. H. Frede, special agent of the woolen mills, were here to confer with the local chamber of commerce and to inspect the hosiery mill buildings. The Aycock Hosiery Mills, of which Rupert Aycock was president, have been closed for some three years, the property now being in the hands of the Reconstruction Finance Corporation.

Mr. Stein stated that he was in Tennessee to find a suitable location for a Southern plant. Sites at Springfield and Lenoir City in Tennessee have been visited but these locations would necessitate the erection of new buildings, he said.

After conferring with representatives of the South Pittsburgh Chamber of Commerce and looking over the buildings, Mr. Stein said that he would confer with the RFC officials to ascertain the figure at which the property might be obtained.

Spartanburg, S. C.—A five-year modernization program at a cost of 1 million dollars, which was planned by David Downs Little, local textile executive, for Appleton Mills, Anderson, S. C., before his death in 1935, was described here by T. Frank Watkins, of Anderson, attorney for Mr. Little, at an estate tax hearing involving an alleged deficiency of $140,549.

Mr. Watkins said the modernization, which had been continued since Mr. Little's death, was now up to the weaving department, where 200 of a planned 1,700 Model X design looms have been installed.

Mr. Watkins testified that Mr. Little owned very little of the stock of the Appleton Company at the time of his death and was on a salary basis. The witness continued that, by request of Mr. Little and with concurrence of the board, he was scheduled to be trained as Mr. Little's ultimate successor but that his death interrupted the arrangement. Mr. Watkins served about a year after Mr. Little's death and then Treasurer Nicholls, now in charge of operations, was engaged.

The Citizens & Southern Bank of South Carolina, executor of the Little estate, petitioned for redistribution of the reported deficiency. Inclusion of a $100,000 life insurance policy through error, raising of the market value of the Little Securities Corp. when not supported by market values and errors in including a trust fund are claimed by the petitioner.

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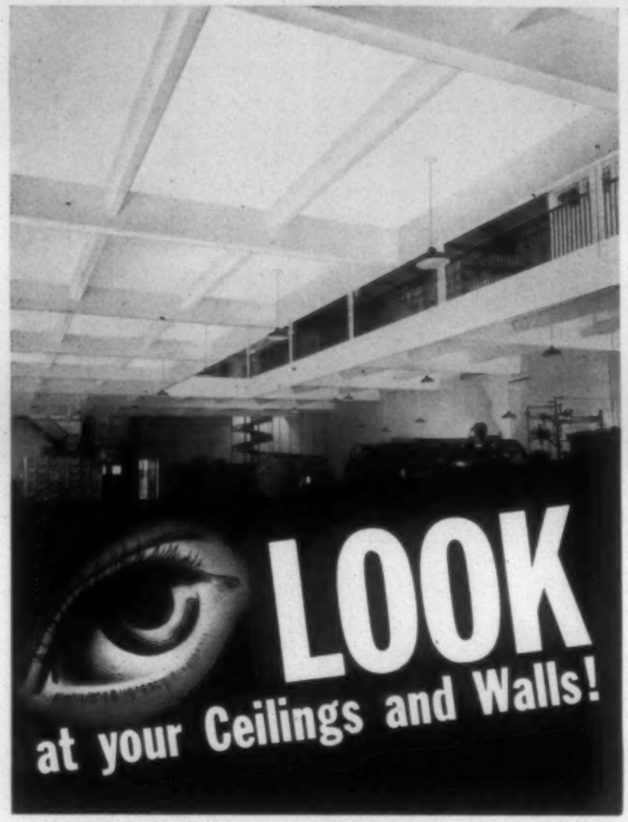

Are they playing their part in your plant's Light Conditioning?

You "light condition" to save money . . . to speed up work, heighten morale, cut down errors, lower production costs. But is your plant truly, economically light conditioned? It can't be if your ceilings and walls are dull and dingy . . . unpainted absorbers of light!

To make the most of both free daylight and the artificial light you pay for—your first step in light conditioning your plant is white paint. To get the most in highest light reflection, longest-lasting whiteness under the most "difficult" paint conditions in your plant—the white paint you need is Sherwin-Williams Save-Lite!

There's a Save-Lite specially formulated for your plant and the conditions under which it operates. The Sherwin-Williams painting technician will tell you exactly which Save-Lite you need and where in your plant you need it. Let him make a survey. There will be no obligation. Or write for the free Sherwin-Williams "Plant Conditioning Report". Address the Sherwin-Williams Company, Cleveland, Ohio, and all principal cities.

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SAVE LITE
COVER THE EARTH
THE PLANT CONDITIONING PAINT

S. C. Mill Pay Above Farm's

Greenville, S. C.—The average textile worker in South Carolina earns as much in two hours as the average farm worker earns in an entire day in 1939, figures prepared by Dr. William P. Jacobs, secretary-treasurer of the Cotton Manufacturers' Association of South Carolina, showed.

Annual earnings of textile employees from 1909 to 1938 increased 169 per cent, the figures showed, while from 1929 to 1939 the average farm wage per day in South Carolina, without board, declined 36 per cent.

Since 1909 the textile industry in South Carolina has paid out in wages a total of $1,105,000,000, Dr. Jacobs said.

The 169 per cent increase in textile employee wages since 1909 was recorded despite a slight drop in the wage index last year because of curtailed operations.

In January, 1929, the farm wage rate per day, without board, was $1.25. It touched a period low of 55 cents in January, 1933, rose to 80 cents in January, 1937, and was fixed at the same rate in January of this year.

Cotton Week Termed Success

Confirmation of earlier reports of success of this year's observance of National Cotton Week is embodied in newspaper advertising lineage figures released by Charles K. Everett of The Cotton-Textile Institute. Morning and evening newspapers in fifteen cities in various sections of the country were checked in an independent audit made by the Market Research Corporation of America, which measured a total of 771,029 agate lines of advertising of cotton merchandise for the period May 21-27.

In the light of the gratifying responses to special Cotton Week offerings previously reported to the Institute by key merchants generally, these figures again illustrate the immediate efficacy of newspaper advertising which claimed the preponderant part of promotion expenditures of participants in the event. The cities included in the study were: Springfield, Mass.; Springfield, Mo.; New York, N. Y.; Chicago, Ill.; Cincinnati, Ohio; Los Angeles, Calif. ;Portland, Ore.; New Orleans, La.; Tulsa, Okla.; Sioux City, Ia.; Decatur, Ill.; Cleveland, Ohio.; Atlanta, Ga.; Muncie, Ind.; Dallas, Tex.

Elsewhere, according to Mr. Everett, the newspaper advertising of retail stores during Cotton Week likewise shows an unusual concentration on cotton goods of all types ranging from apparel to household cottons and embracing many specialties such as tents and awnings, automotive accessories, garden furniture, and the cotton bags for the put up of various foodstuffs.

From the viewpoint of the cotton textile industry, perhaps the most significant outcome of Cotton Week is to be found in the disposition displayed by retailers to continue with their cotton promotions on the basis of their successful participation in Cotton Week. Cotton goods manufacturers believe that with advances in raw cotton and wage costs already in sight, merchants will be inclined to merchandise cotton goods these next few weeks more aggressively than would perhaps otherwise be the case.

National Cotton Week this year was under the joint sponsorship of the Cotton-Textile Institute and the National Cotton Council of America. Accounting in large measure for the success of the event was the active cooperation of the Cotton Consumption Council comprising: American Cotton Co-operative Association, Association of Southern Commissioners of Agriculture, Institute of Distribution, National Association of Chain Drug Stores, National Association of Food Chains, National Retail Dry Goods Association, Wholesale Dry Goods Institute.

Auto Industry Big User of Cotton

It takes sixty pounds of cotton to complete the average modern automobile.

And there are approximately three-quarters of a million bales of the Southern staple required annually for automobile manufacturing in the United States.

These facts and others showing the reciprocity of bene-

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WARP SIZING COMPOUNDS
FOR COTTON AND RAYON
SOFTENERS OILS
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Acids:—
Acetic, Cresylic,
Muriatic, Nitric,
Oxalic, Sulphuric
Alkalies
Ammonia, Aqua
and Anhydrous
Alums

Chlorine
Calcium Chloride
Metallic Salts
Phosphates
Silicates
Solvents
Laundry Sodas
Dairy Cleansers
Insecticides

MORELAND CHEMICAL CO., Inc.
SPARTANBURG, S. C.
314 W. HENRY ST. Established 1908 PHONE 1872

fits of cotton to the automobile industry and vice versa, were set forth in a radio interview over WSB, Atlanta, Ga., recently.

Most of the cotton used in making an automobile is in the tires. The average tire contains about five pounds of cotton in the form of cord or fabric.

Tires of big busses and trucks, however, use forty or more pounds of cotton cord or fabric.

A half-million bales of cotton are consumed yearly in tires alone, while more of the staple is used in hose connections, upholstery padding, in the fan belt and electric insulation.

How To Effect Economies After Productiton Told in New Acme Booklet

"Stopping Profit Leaks Beyond the Production Line" is the title of a new booklet now being distributed by Acme Steel Company, Chicago. This booklet, describing the causes of excessive packing and shipping costs—and the methods for eliminating those costs—has been prepared especially for executives. Complete, concise and to the point, it explains how to locate the source of losses after production has been completed. It illustrates the manner in which the Acme Steelstrap and Unit-Load Processes may be used successfully to eliminate unnecessary shipping expense, damages and loss of time.

Several pages of the booklet are devoted to interesting and informative photographs dramatizing the ways in which Acme methods are being used successfully and economically in practically every industry.

No Choice

Berlin.—A factory worker in Germany can't quit his job without special permission from government authorities. If he deliberately tries to get himself fired by loafing on the job, he is fined or sent to jail instead of being discharged.

That is what a skilled worker found recently. He was fined 300 marks ($120) when he admitted that he had shirked in order to be fired from the job he didn't like. The worker explained he wanted a change of work and could think of no other way to get out of his present job.

The court ruled in its decision that loafing is "inimical to the national honor" and endangers the success of the four-year plan.

Pacific Mills Lose Freight Rate Case

Washington, D. C.—The Pacific Mills lost its case against the Boston & Maine Railroad when the Interstate Commerce Commission ruled that copper rolls used in printing textiles shipped from Taylors and Lyman, S. C., to Lawrence, Mass., would not be classified for rate making purposes under the heading of textile machinery.

The applicant mill sought to have the ICC rule that the rolls were textile machinery and should be shipped under a freight tariff of 73 cents per 100 pounds. The defendant railroad took the position that the separate classification was legal and that the rates of $1.28 per hundred pounds in less than carload lots and $1.28 in carload lots should prevail.

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by the

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British Cottons Exports Lowest in 90 Years in 1938

Manchester, Eng.—The United Kingdom's once great cotton textile industry, whose exports to the world before the war totaled 7 billion linear yards annually and are now nearly 70 per cent below that huge volume, continues to wane, according to statistics issued for 1938 by the Economic Department of the Joint Committee of Cotton Trade Organizations.

The past 12 months, this authority reports, were the worst for British exports of cotton piece goods in nearly 90 years and the worst for yarn exports (apart from the war period), since the cotton famine of the early 1860s.

The fall in production from 1937 to 1938 was one of the most serious ever experienced by the cotton industry. Output of cotton yarn fell by 22 per cent, and of cotton piece goods by at least 25 per cent. Exports of yarn fell by 23 per cent and of piece goods by 28 per cent. The fall in output of cotton piece goods for the home market was almost as great—at least 23 per cent.

The output of cotton yarn in the United Kingdom is provisionally estimated by the Economic Department of the Joint Committee at 1,050 million pounds in 1938, compared with 1,350 million pounds in 1937. Cotton piece goods output is estimated at 2,700 million square yards in 1938, compared with 3,600 million square yards in 1937.

The estimate of piece goods output is necessarily only approximate, and the 1938 figure is probably somewhat too high. The average number of insured workers employed in the cotton industry (spinning, weaving and finishing) was about 307,000 in 1938, compared with 386,000 in 1937.

The output of woven rayon goods (including mixtures of rayon with cotton) probably declined by a rather smaller proportion—from 10 per cent to 15 per cent. Exports were 22 per cent less than in 1937 and it is estimated that output for the home market fell by about 10 per cent.

The decline in the exports of cotton piece goods, from 1,921 million square yards in 1937 to 1,386 million square yards in 1938, is stated to be due chiefly to the world economic depression, which has affected nearly every market for British cotton goods. In certain countries—notably Argentina, Egypt, Colombia, Ceylon and French West Africa—the effects of economic depression have been intensified by changes in commercial policy or an increase in competition from other supplying countries.

Among the principal markets the decline was greatest (from 50 per cent to 75 per cent) in French West Africa, Switzerland, Cuba, Holland, British West Africa, the Dutch East Indies and Colombia. Markets where the decline was less severe (from 20 to 40 per cent) include Venezuela, the United States, Ceylon, Malaya, New Zealand, Chile, British West Indies, Egypt, Uruguay and Argentina. Declines of less than 20 per cent were recorded in exports to Eire, Norway, Turkey, South Africa, India, Greece, Sweden, Canada, Germany, Southern Rhodesia and Australia.

In only four markets was there an increase in British trade in cotton piece goods—unspecified British countries, Denmark, Italy and Hong Kong. The increase in trade with Hong Kong is largely due to diversion of trade from Chinese ports; exports to China and Hong Kong, taken together, rose by 18 per cent.

Exports of cotton yarn fell from 159 million pounds in 137 to 123 million pounds in 1938. The decline was greatest in Switzerland, Roumania, Holland and Belgium, and less severe in Norway, Sweden, Argentina, India and Canada. Exports to four important markets—Germany, Eire, Australia and Spain—increased.

Urges U. S. Cotton Growers To Emulate Brazilian Methods

United States cotton growers can learn an important lesson from the experiences of Brazil in building its crop to the point where that country now produces 2 million bales a year, comments Benjamin H. Hunnicutt, president of Mackenzie College in Sao Paulo, writing in the current issue of the *Country Gentleman* magazine.

Mr. Hunnicutt disagrees with some points of view that Brazil would be an itinerant producer of cotton, and says that "everything points to the fact that Brazil is in the business of cotton production and exportation to stay."

This country "must standardize the quality of our cotton and improve the uniformity of its fiber, as the Brazilians have done," he feels, and inasmuch as Brazil has been successful as a one-variety cotton producing country, Mr. Hunnicutt suggests that we might have one-variety counties, or even States, or "at least reduce the number of varieties, so that a fairly uniform product will be the result. The Brazilians have done it to their profit," he points out.

Although Brazil became a cotton producing country mainly through the efforts of a British commission, in order to make certain of a source of supply of cotton acceptable to the British, at present Germany is the largest importer of Brazilian cotton, he comments. "More than Great Britain or Germany," he goes on, "the foreign country to prosper most by the sudden expansion of Brazilian cotton production has been Japan." In fact, a good percentage of the cotton is grown by Japanese immigrants.

First Quarter Net of 66 Firms 39.6% Above 1938

Aggregate earnings of the first 66 industrial companies reporting for quarter ended March 31, 1939, show a combined net income of $41,799,456 compared with $29,944,931 in quarter ended March 31, 1938, an increase of $11,854,525 or 39.6 per cent.

Japan Buying More Cotton

Washington, D. C.—War buying has again placed Japan in the forefront of foreign purchasers of Carolina's cotton, the Commerce Department disclosed.

With the exception of Sweden, Japan is the only country which is purchasing more cotton this year than last, and has forged way ahead of the United Kingdom as the principal customer, according to the Department of Commerce.

Living Costs in South Estimated As 3.1% Below North

Washington, D. C.—A survey of comparative living costs in five small Southern cities and five Northern cities of similar size, just completed by the U. S. Bureau of Labor Statistics for Administrator Elmer F. Andrews of the Wage and Hour Division, U. S. Department of Labor, found the average was 3.1 per cent lower for the five Southern cities.

The study was undertaken by the Bureau of Labor Statistics at the request of Mr. Andrews, who wanted all pertinent information on questions that may come before him in conducting hearings and passing upon the minimum wage recommendations of the various industry committees. The questions of wake differentials in favor of the South and of living costs in the South, as compared with the North, have already come up before some of these committees.

The report of the Bureau of Labor Statistics showed that while, on the average, rents in the five Southern cities surveyed are 7.6 per cent lower than for similar housing in the North and fuel costs are 34.2 per cent lower, there was no essential difference in food costs. The cost of clothing was 2 per cent higher in the five Southern cities surveyed; furniture, furnishings and equipment 3.8 per cent higher, and miscellaneous items 3 per cent higher.

Rents for company houses were not included in the survey of cities in either region because the Fair Labor Standards Act provides that the wages required under the act may include "the reasonable cost, as determined by the administrator, to the employer of furnishing such employee with board, lodging or other facilities." The rents tabulated were for houses of four, five and six rooms having, as a minimum, running water, inside flush toilets and electricity for lighting.

Families in both regions have adapted their expenditures to local prices, consuming more of the goods which are relatively cheap in the locality and less of those goods and services which are relatively more expensive. Thus, based on the prices of goods consumed by an average family of an employed wage earner in the North, the Bureau of Labor Statistics finds that the cost of such a Northern budget is 1 per cent less in the five Southern cities surveyed than in the Northern cities surveyed. In dollars, the cost is $1,387 in the Northern cities and $1,374 in the Southern cities.

Looking through these regional differences which cause a Southern diet to be more expensive in Northern than in Southern cities, and a Northern diet to be more expensive in Southern than in Northern cities, the Bureau of Labor Statistics concluded there is no general difference in the cost of food as between the two regions and finds that the cost of living, as a whole, averages only 3.1 per cent lower in the five Southern cities than in the Northern cities surveyed.

The data in the report submitted to Mr. Andrews are based upan an investigation of retail prices and rents conducted by the Bureau of Labor Statistics as of December 15, 1938, in the following 10 cities of 10,000 to 20,000 population:

Chillicothe, O., Dover, N. H., Hanover, Pa., Holland, Mich., Little Falls, N. Y., Hattiesburg, Miss., Sherman, Tex., Statesville, N. C., Sumter, S. C., Thomasville, N. C.

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U. S. 1938 Cotton Crop Placed At 11,943,000 Bales

Washington, D. C.—The U. S. Agricultural Department in a final report placed 1938 cotton production at 11,943,000 bales.

The 1938 crop was approximately 7 million bales smaller than 1937 production of 18,946,000 bales.

Greensboro Cotton Group Organizes

Greensboro, N. C. — Edwin F. Lucas was elected president at the recent organization luncheon meeting of the Greensboro Cotton Association, Inc., at the Jefferson Roof Restaurant. A. M. Inman was elected secretary and J. M. Brantley, treasurer.

The executive committee, in addition to the officers, is composed of J. E. Harty and D. N. Gilbert.

The purpose of this organization is "to foster and promote the interests of cotton and the industry in this territory." The need for such an organization has been felt for some time as an adjunct to the national cotton associations and will act as a co-operative unit with the others, it is explained. It is planned to have monthly meetings.

Those individuals and firms affiliated with the association as charter members include the following futures and spot brokers, merchants, and warehousemen:

J. M. Brantley, Anderson, Clayton & Co.; A. M. and C. C. Inman, Inman Bros., Inc.; Edwin F. and R. C. Lucas, Mathewes, Crews & Lucas; D. N. Gilbert and L. K. Thompson, Gilbert & Thompson; J. E. Harty, McFadden & Tolson; Paul Manget, Manget Brothers; Percy H. Cooke, P. H. Cooke & Co.; J. M. Stansel, J. M. Stansel Co.; R. Heard Clark, R. Heard Clark Cotton Co.; G. O. Coble, G. O. Coble & Co.; Thos. Crabtree, Rucker & Co.; C. G. Hayden, American Cotton Co-operative Association; P. C. Rucker, South Atlantic Bonded Warehouse Corporation; J. K. Isley, Greensboro Warehouse & Storage Co.; and Gordon Latham, E. A. Pierce & Co.

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Ten Years of Cotton Textiles

(Continued from Page 14)

was the smallest installation of new machinery reported in fifteen years, save for the mid-depression year of 1932.

New Low for Average Number of Active Spindles

Working spindles, or the monthly average of active spindles, were reduced in 1938 to a new low of slightly over 22 million, or 82½% of the spindles in place at the beginning of the year. The low month was June, with 21,143,988 active spindles and the high, November, with 22,449,280. Under conditions of severe competition, it is probable that the maximum figure in this category is now around 22½ million, which was reached in February of this year.

Idle spindleage in 1938 ranged from 5,328,000 in June to 3,542,000 in December, but there were less than 2 million which failed to run at some time during the year ending July 31, 1938. Being partially based on the wide activity in the summer and fall of 1937, this estimate of long idle machinery is the lowest since 1924. Paralleling the decline from 1937 of 2 million active spindles in the average for the year was an increase in those intermittently operated to double the 1937 figure.

Hours of operation per average active spindle declined for the first year since 1934, being over 13% under 1937. Short time operations in the first six months and abandonment of third shift operations by many plants in the last half year were chiefly responsible for the reduction of 526 hours in the annual figure.

Raw Cotton Consumption

With the variety of adverse influences, consumption of raw cotton for 1938 declined to approximately 2,905 million pounds, in contrast with revised estimates of 3,657 million pounds in 1937, 3,470 million in 1936, and 2,755 million in 1935.

On a per capita basis this is approximately 22.3 pounds in contrast with 28.29 pounds per capita consumed in 1937. The yardage complement of woven goods available for per capita consumption in 1938 was 55.61 square yards. Actual per capita consumption was undoubtedly higher due to the liquidation of trade inventories during the year.

Cotton Consumption for April Reported Over Month in 1938

Washington, D. C.—Counting round as half bales, except foreign, which is in 500-pound bales, 546,702 bales of cotton were consumed during April compared with 413,169 bales in April last year, according to statistics made public by the Census Bureau, Department of Commerce. For the nine months period ended April 30th this year, consumption totaled 5,150,040 bales compared with 4,430,333 bales in the same period a year ago.

Cotton on hand April 30th in consuming establishments totaled 1,292,349 bales compared with 1,699,827 bales in the same period in 1938; while in public storage and at compresses for the two periods there was a total of 12,968,295 bales and 10,487,001 bales, respectively. Of total consumption during April, 463,528 bales were used in the cotton-growing States, 67,776 bales in New England States, and 15,398 bales in all other States.

Linters consumed during April, not included in above figures, totaled 69,147 bales compared with 57,475 bales in April a year ago.

Exports in April totaled 178,000 bales valued at $8,973,000 compared with 330,000 bales valued at $16,749,000 in March and 377,000 bales valued at $19,634,000 in April, 1938, according to an analysis of export statistics by the Textile Division, Bureau of Foreign and Domestic Commerce, Department of Commerce.

Cotton Goods Markets

New York.—The buying tempo for cotton gray goods has stepped up to quite a degree during the past several weeks. Prices have improved and the entire structure of gray goods have been active.

The buying of print cloths has entered into a phase of greater activity on the part of converters and other users. It was estimated that during the week ending June 9th more than 60 million yards of print cloth were sold, with buyers taking freely at increases of as much as an eighth of a cent. It has also been estimated that the sales of print cloths since the beginning of the present movement has been in excess of 2 million pieces.

That much of the buying has been against actual needs is the opinion of some observers, in view of the fact that there has been no particular change in the factors which have been credited with holding down activity on the market. General business conditions, the future of cotton legislation, mill curtailment, and the application of the wage and hour law are the factors which have been generally considered to be the things holding the market back, and about the only development in any of them is the fact that it now seems likely that the curtailment program announced some time ago may go into effect at an early date. Practically enough looms have already been signed to put the plan into effect.

Apparently the buying movement has definitely spread into the finished goods markets, and the aggregate of the volume in the finished goods branches during the week of June 9th is believed to have been the greatest in several months.

Cotton market board quotations held around recent advanced levels. The basis, however, continued to decline and it was pointed out in some centers that this recession about equalized the coincident rise in July. Mills' margins over cotton widened slightly, but continued to be regarded as highly unsatisfactory.

A decline of 20.5 per cent from 1937 to 1938 in the weaving of cotton goods has been reported by the Association of Cotton Textile Merchants of New York.

The Association listed the 1938 production in the United States as 7,502,168,000 square yards, compared with 9,445,736,000 in 1937. With general business depression following two consecutive years of large output, 1938 was predestined to be a period of inventory distribution and adjustment of production to reduced demand.

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Cotton Yarn Markets

Philadelphia.—Advances of a half cent are noted on carded knitting yarns on cones and this further stiffening of prices is in step with the market trend of yarn of this category which has resulted in an increase of 1 cent a pound during the period of the last three weeks.

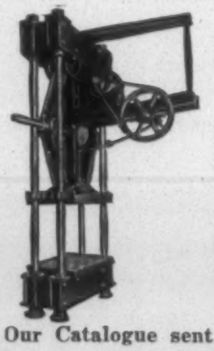
Another factor of note in cotton yarn sales is that spot cotton closed at 10 cents recently for the first time this season, which is the direct result of a scarcity in spot cotton. Big dealers in this are refusing to take orders since they do not own any cotton.

If the present market conditions keep on, it is thought that the Government will release at least part of the loan cotton, which will have a great effect in easing the situation in spot cotton. This in turn will influence spinners who have been in a somewhat upset state of mind and they will start to buy more freely.

It is said that there is a great deal of anxiety felt as to the outcome of the Export Products Bill which tends to produce a state of uncertainty.

Volume of business is reported holding up and many inquiries which are being made point to an extremely healthy situation in the future. However, the present period may be described as a period of sparring for advantages, with buyers waiting for various developments which may influence both general business conditions and, especially, cotton yarns. In regard to the first named, business men in all fields are watching for any move Washington may make that will either be encouraging, or will again make them feel that the Government is not sincerely interested in promoting economic recovery.

Secondly, those dealing specifically with cotton yarns in all its ramifications are waiting for the information which the Government will publish on the cotton crop on July 8th. A prominent spinner stated he did not believe that there would be much structural price changes in cotton yarns until after that report was published. A great deal hinges on that report as to whether cotton goes forward or not.



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(*Continued from Page 20*)

First Flight: W. A. Kluttz defeated F. A. Hipp, 3 and 2.

Second Flight: Graham McNair defeated J. C. Bass, 5 and 4.

Third Flight: Toots Causey defeated Corry Lynch, 2 and 1.

Fourth Flight: Irving Royce defeated R. P. Bullard, 3 and 2.

Team Scores

In the team battle, the National Weaving Company of Belmont was second with 331. Cannon Mills of Concord was third with 333. Other team scores were: Cramerton Mills, of Cramerton, 336; Kendall Mills, of Paw Creek, 337; Highland Park Manufacturing Company, of Charlotte, 337; Cone Mills, of Greensboro, 379; Chadwick-Hoskins Mills, of Charlotte, 380; Republic Cotton Mills, of Great Falls, S. C., 390.

Qualifying Scores

MILL MEN'S DIVISION

Martin Michael, 73; Leroy Reece, 79; Harold Thomas, 75; W. A. Powell, 80; Q. G. McCombs, 74; D. H. Anderson, 80; G. W. Rockett, 77; R. F. Bumgardner, 81.

P. W. McCollum, 81; W. M. Cooper, 82; Elber Lineberger, 82; W. F. Denning, 84; M. K. Davenport, 82; L. C. Floyd, 82; Robt. Broom, 82; R. L. Rowan, 84.

L. C. Morrow, 85; M. S. Smith, 87; Karl Ginter, 85; L. S. Beatty, 87; W. H. Miley, 85; G. B. Myers, 87; T. R. Broom, 86; L. A. Andrews, 87.

N. W. Carter, 87; Frank Stough, 89; C. L. Summey, 88; Vernon Reece, 89; M. W. Rodgers, 88; C. F. Martin, 89; Chas. Rhyne, 88; E. B. Powell, 90.

Aaron Powers, 90; Leonard Broom, 91; John Shumate, 91; H. W. Branson, 92; Kenneth Ware, 91; P. B. Martin, 92; F. H. Hall, 91; June Gaither, 93.

L. G. Stowe, 93; G. E. Faulkenbury, 94; J. C. Martin, 94; N. G. Hardie, 95; Reuben Gibson, 94; Frank Jones, 95; R. H. Hall, 94; O. S. Cooley, 96.

Lloyd Pope, 96; R. A. Geer, 97; Eversett Isenburg, 97; H. W. Rogers, 100; Webb Hopper, 97; L. C. Campayner, 89; H. O. Solomon, 97; R. L. McGrew, 100.

W. F. Lanier, 100; J. M. Proctor, 103; C. Rhymer, 102; T. N. Whitner, 104; T. W. Church, 101; Ralph Danner, 104; Stev. H. Gibson, 102; Otis Shumate, 111.

SALESMEN'S DIVISION

Brick Smith, 74; G. S. McCarty, 80; A. T. Lomax, 79; Bill Terrell, 81; Charles Kelly, 78; Nick Loughlin, 80; F. W. Oxley, 79; Ed Reid, 81.

Jack Roy, 84; H. L. Siever, 86; W. A. Kluttz, 85; Irvin Hoffman, Jr., 88; H. O. Pierce, 85; F. A. Hipp, 88; Peter Gilchrist, 85; C. O. Stephenson, 89.

T. C. Smotherman, 92; J. H. Bobbitt, 94; T. C. Bass, 93; Alvin Teat, 95; Harry Curtis, 92; S. L. Hayes, 95; Graham McNair, 93; C. W. Gilchrist, 95.

Corry Lynch, 96; L. E. Taylor, 99; Arthur Thompson, 97; J. M. Ullmer, 99; R. G. Spratt, 96; F. W. Warrington, 99; Hugh Causey, 97; Frank Coker, 100.

Irving Royce, 100; Harvey Orr, 108; B. L. Horney, 103; Chas. Gunter, 112; Frank Rapp, 101; H. W. Hungerford, 111; R. P. Bullard, 104.

First Two Rounds

MILL MEN'S DIVISION

Champion Flight

First Round—Martin Michael defeated Leroy Reece, 2-1; Harold Thomas defeated W. A. Powell, 8-7; A. G. McCombs defeated D. H. Anderson, 5-4; R. F. Bumgardner defeated G. W. Rockett, 1-up, 19.

Semi-finals—Thomas defeated Michael, 3-2; Bumgardner defeated McCombs, 4-3.

First Flight

First Round—William Cooper defeated P. W. McCollum, 3-2;

Wade Denning defeated Elbert Lineberger, 2-1; M. K. Davenport, defeated L. C. Floyd, 2-1; Robert Broome defeated R. L. Rowan, 1-up, 21.

Semi-finals—Davenport defeated Broome, 2-1; Cooper defeated Denning, 1-up, 19.

Second Flight

First Round—L. C. Morrow defeated M. D. Smith, 1-up; L. S. Beatty defeated Karl Ginter, 3-2; W. H. Miley, Jr., defeated G. B. Myers, 3-2; T. R. Brown defeated S. A. Andrews, 3-2.

Semi-finals—Morrow defeated Beatty, 3-2; Brown defeated Miley, 1-up.

Third Flight

First Round—Frank Stough defeated M. W. Carter, 4-3; Vernon Reece defeated C. L. Summey, 3-2; C. F. Martin defeated M. W. Rogers, 4-2; E. B. Powell defeated Otis Rhyne, 3-1.

Semi-finals—Reece defeated Stough, 3-2; Powell won, default.

Fourth Flight

First Round—Aaron Powers defeated Leonard Brown, 4-3; John Shumate defeated H. W. Branson, 2-1; Kenneth Ware defeated P. B. Martin, 6-5; June Gaither defeated F. H. Hall, 1-up.

Semi-finals—Shumate defeated Powers, 2-1; Ware defeated Gaither, 4-3.

Fifth Flight

First Round—L. G. Stone defeated G. E. Faulkenberry, 1-up; Newt Hardie defeated J. G. Martin, 3-2; Reuben Gibson defeated S. Frank Jones, 5-3; R. H. Hall defeated O. D. Corley, 3-1.

Semi-finals—Hardie defeated Stone, 2-1; Hall defeated Gibson, 2-1.

Sixth Flight

First Round—Lloyd Pope defeated R. A. Geer, 4-2; Everett Isenberg defeated H. W. Rogers, 2-1; Webb Hopper defeated L. C. Campayner, 3-2; R. L. McGraw won by default.

Semi-finals—Isenberg defeated Pope, 4-2; Hopper defeated McCraw, 6-5.

Seventh Flight

First Round—J. M. Proctor defeated W. F. Lanier, 4-3; T. Manly Whitener defeated G. R. Rhymer, 7-6; Ralph Danner defeated T. W. Church, 3-1; Steve Gibson defeated Otis Shumate, 6-5.

Semi-finals—Proctor defeated Whitener, 1-up; Gibson defeated Danner, 3-2.

SALESMEN'S DIVISION

Championship Flight

First Round—Brick Smith defeated G. S. McCarty, 2-1; Bill Terrell defeated A. T. Lomax, 5-4; Charles Kelly won by default; Ed Reid defeated F. W. Oxley, 1-up, 19.

Semi-finals—Smith defeated Terrell, 1-up, 20; Reid defeated Kelly, 5-4.

First Flight

First Round—H. L. Sevier won by default; W. A. Kluttz defeated Irwin Hoffman, 5-3; F. A. Hipp defeated H. O. Pierce, 2-1; Peter Gilchrist defeated C. O. Stephenson, 2-1.

Semi-finals—Kluttz defeated Sevier, 3-2; Hipp defeated Gilchrist, 2-1.

Second Flight

First Round—T. C. Smotherman defeated J. H. Bobbitt, 3-2; T. C. Bass and S. L. Hayes won by default; Graham McNair defeated C. W. Gilchrist, 2-1.

Semi-finals—Bass defeated Smotherman, 2-1; McNair defeated Hayes, 4-3.

Third Flight

First Round—Corry Lynch defeated L. E. Taylor, 8-7; Arthur Thompson won by default; R. G. Spratt defeated F. W. Warrington, 6-4; Toots Causey won by default.

Semi-finals—Lynch defeated Thompson, 6-4; Causey won on default.

Fourth Flight

First Round—Irving Royce defeated Harvey Orr, 5-4; R. L. Horney won by default; F. U. Rapp defeated H. H. Hungerford, 7-5; R. P. Bullard, bye.

Semi-finals—Royce defeated Horney, 2-1; Bullard defeated Rapp, 2-1.

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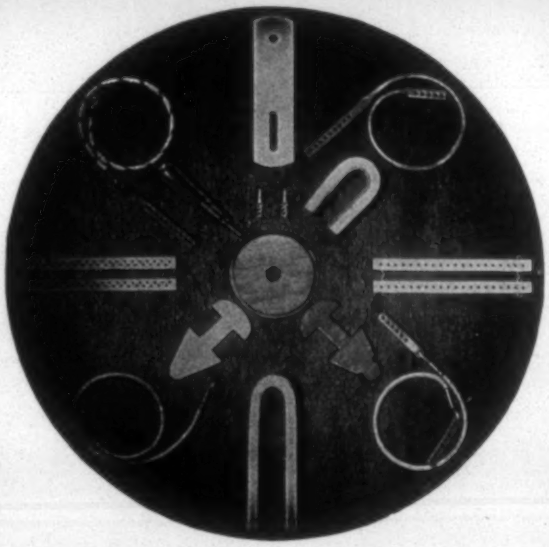

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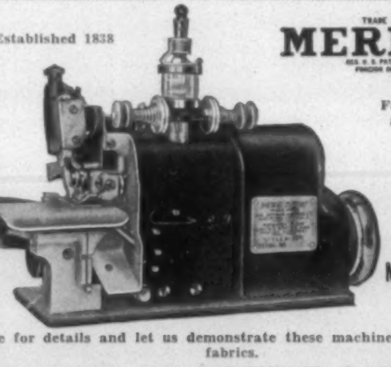

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How to Prevent Uneven Yarn

(*Continued from Page 18*)

motion working perfectly at all times. Keep the arbors, roll necks, and stands in good condition. Clean the fluted steel rolls every two weeks. If leather, cork or other types of non-metallic top rolls are used, keep them in good condition and the same diameter. Train the tender to splice all ends and don't run the cans too full.

Fly Frames

Line and level frames once each year. At this time, clean the fluted steel rolls. Replace all badly worn gears, bolsters, studs, bearings, etc. Throw out all badly worn bobbins. Don't allow a tolerance of more than .015 of an inch in the diameter of the bobbins.

Run the tension slack enough not to stretch the roving. Have the lay close as you can without letting it pile. Use only enough twist in the roving to keep it from stretching in the creel at the next process. Don't allow cotton to accumulate around bottoms and tops of roving skewers. Keep good skewers and skewer steps. Keep out all top rolls which are in bad shape. Clean and oil top rolls daily. Have the roving traverse working properly and making a full stroke. Keep cotton laps off of bottom steel rolls. Oil spindles and bobbin gears twice a week. Don't let the frame hand fan off the frames or run the bobbins too full. Bad creeling means uneven work. Have every end spliced; a safe rule to follow is to have the splice about equal to the length of the staple.

Spinning

The same rules as applied to lining, leveling, and care of rolls as applied to the fly frames will also apply to spinning. In addition, plumb the spindles, set guide wires, and level the ring rails. Take out all worn rings, spindles, bolsters, and bobbins. Set the rolls as close as the staple will permit. Worn cap bar nebs affect the top roll setting, causing some unevenness. Use a traveler of the proper weight and change them periodically. Have gears set to proper depth, and weight levers adjusted to a level position. Don't let spinners leave long tails of roving while creeling. Cleanliness and proper lubrication are of paramount importance in spinning even yarn. Especially is this true of long draft. Adopt a cleaning program that really cleans. Hove bands tied on with an even tension where tapes are used. Keep the take-up pulley running freely. The steady production of even yarn depends largely upon the painstaking supervision at every process by the overseers.

D. E. L.

NUMBER TWENTY

There are hundreds of reasons for uneven yarns in our textile manufacturing processes, therefore I am going to start in the open room and come down the line of processing.

The cotton or stock that we are running should be opened up and fed as evenly as possible from each bale. The hopper feeding into each line of opening should be set or regulated to give the same amount of stock from each one feeding into line, and the hoppers on one process pickers, if we are using one process, should stay at a uniform level at all times, and by all means should not get low or too full, and in this way, with everything in good mechanical condition on the pickers and screens clean and free of chokes, we should get each yard of lap produced to weigh the same.

The humidity in picker room is important, and I think each lap made should weigh according to the regain or loss of moisture in the cotton at the time produced into a lap.

The third place to prevent uneven yarn is to have the card set right, also sharp as possible, and tension on comb same on all cards in room.

The lap should be laid correctly when laying new lap behind one going out of card, and card should be free of chokes and stripped at proper time, but by all means before it becomes loaded.

The drawing is very important. Also tensions, steel rollers, knock-off spoons, calender rolls and all gearing must be set correctly to produce even drawing.

Creeling drawing is better than setting in one can at a time unless help is trained perfectly about allowing singling and doubling to go through.

Slubbers should be creeled properly. Tension and all other gears, including right twist and lay on bobbin, are very important.

The intermediate and speeder processes are just as important, and frames should be level and lined and tensions working perfectly and bobbins being made without roving crowding other layers.

Skewers, skewer steps and creels are very important in order to prevent any stretch in roving in creels.

Assuming the roving has been made as nearly perfect as possible, next is the spinning of yarn from this roving, and we are expecting this roving to be perfect as the rollers should be set in order to be free of any thick and thin places.

The creels, skewers and skewer steps should be in good condition. Trumpets, where roving enters steel roll, should be right, and large enough to let roving pass through freely.

Rollers should be set as closely as possible according to staple cotton being run. Travelers should be changed at proper time. New rings should never be mixed with old ones, and when you have double flange rings, they should never be turned without turning whole frame. Proper cleaning, doffing and creeling are very important.

All gears, including twist, drafts and lay, should be the same for the same count if frame have same constant.

On band drive, spindle whorls should all be the same diameter, if not should be regrooved to same diameter.

Top rolls should all have the same weight on them. and all levers and saddles and stirrups being set alike.

Tape drive all idle pulley hangers should weigh the same and be heavy enough to pull spindles without any slipping.

Tape idle pulley hangers should be kept clean, and all wood blocks in bearings clean and free from binding.

Top rollers should all be as good as possible, free from loose cots and cushions.

The items I have mentioned here cover the high places and applies to carded or combed cotton or waste, rayons or synthetic fibres, including mixed blends of all kinds and grades of stock, both white and colored work.

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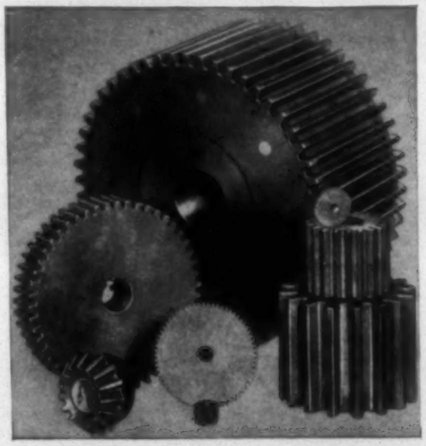

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S. C. Carders and Spinners Discuss Mill Problems

(*Continued from Page 13*)

many processes should spun rayon be put through from the bale to the spinning room? Discuss these processes."

Mr. Crow, we should like to hear from you. I know that you are one of the most experienced men we have in running rayon. In making rayon-print-cloth numbers, say 30s, through how many processes and what processes would you carry it through the spinning?

Smith Crow, Supt., Drayton Mills, Spartanburg: Mr. Chairman, I carry it through the pickers, cards, two processes of drawing; then through the roving frames, the number of processes of roving depending, of course, upon the yarn counts. On print-cloth counts I take it through one process of roving frames—long-draft roving.

Mr. Stutts: Would you run it single or double in spinning?

Mr. Crow: On warp we run it single, if not finer than 30s yarn. If finer than that we run it double.

Mr. Stutts: What breaking strength do you expect to get?

Mr. Crow: From 60 to 65.

Mr. Stutts: That is on old spinning?

Mr. Crow: Yes, sir.

Mr. Stutts: Thank you, sir. Mr. Roberts, Superintendent of Kendall Mills, we should like to hear from you.

C. C. Roberts, Supt., Kendall Mills, Pelber: Mr. Chairman, all I can tell you about that is what we are doing. We are running ours through the pickers, cards, and one process of drawing, making 4.50 hank roving and running it double in spinning. The breaking strength averages from 60 to 62.

Mr. Stutts: Are there any particular questions anyone would like to ask about spun rayon while we are on it?

Mr. Cottingham: Is it the general practice to rework the roving, the scavenger waste, on spun rayon?

Mr. Lyons: We rework all the waste in rayon except the toppings from the nubs. We do not rework that.

Mr. Stutts: Has anyone here had any experience on nub acetate? I think we do not like to talk about acetate, because we run into so many headaches. Mr. Adams, from Whitmire, are you running any acetate?

Mr. Adams, Whitney. We have run some.

Mr. Stutts: Do you run any nubs?

Mr. Adams: Yes, we have run quite a few samples. We have found out that it is different—quite a bit different in a great many respects. It can be run, I guess. (Laughter.)

Mr. Stutts: In your rayon, Mr. Adams, do you run it single or double in spinning, on warp?

Mr. Adams: We run it single altogether.

Mr. Stutts: What is the breaking strength?

Mr. Adams: We find the breaking strength is not a great deal less than that of cotton.

Mr. Stutts: About how much on 30s yarn?

Mr. Adams: 30s yarn breaks about 55.

Mr. Stutts: It is hard for me to find a man whose yarn breaks as low as mine.

Are there any questions? If not, this concludes the carding discussion, and I turn the meeting back to Mr. Lyons.

Chairman Lyons: Thank you, Mr. Stutts.

Gentlemen, Mr. Horton, who was regularly elected as leader of the spinners' group, has transferred his allegiance from South Carolina to Tennessee. I wrote him, and he said he did not have time to come down. There was not time then to call the members of the Executive Committee together, and I took the liberty of appointing a man. I thought Mr. Henry Wood, of the Oconee Mills, would be about the right one, and he is going to lead the spinning discussion. Mr. Wood.

(*Continued in Next Issue*)

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Yarn and Fabric Trends in Europe and America

(*Continued from Page* 10)

ness of spinning, yarn count, twist, humidity, and conditions of break test. It is therefore impractical to say in general that the stronger staple gives a certain percentage increase of strength over the standard. The percentage increase is greater in the coarse counts. In the finer counts as many as possible of the factors giving added strength should be employed so as to gain the maximum benefit from the material.

One of the difficulties with the second phase in Germany is that in their eagerness to show increased strength, figures are quoted which are not always borne out in practice. At the Leipsic Fair some claims were made which have not yet been verified by results in yarn.

Resilience

What wool has to a greater degree than rayon is resilience. In woolen or worsted fabrics one requires a certain character of hand, a springy, lofty, clothy feel. This character has been attributed variously to crimp, curl, elasticity, static, and specific gravity. They may all contribute, but probably the most important factor is resilience. That is the quality which makes a fiber spring back to its former position when bent to one side and released. Wool fibers are twisted out of their natural shape in spinning and their resilience keeps straining to get them back into their original shape again. The fibers in the yarn are lively in somewhat the same sense as a crepe twisted yarn is lively. In the same sense that a brass spring has more resilence than an iron spring, so does wool have more resilience than rayon.

CRIMP

Efforts have been made to meet this requirements by giving rayon an artificial crimp. The word "crimp" needs some defining, as it is being loosely used in the trade and has become almost more of a slogan for a crusade than a term defining a fiber. The dictionary defines the verb crimp as "to bend or press into ridges or folds; corrugate; flute." And the noun as "anything crimped, as a lock of hair." There is a crimped viscose staple in the American market. There is an acetate staple which is commonly referred to as crimped but which is practically straight and with considerably less crimp than standard viscose staple fiber. If crimp is what one really wants one must not be misled by the use of the term in the trade.

The permanence of a crimp in staple fiber is important. There obviously is little use in going to the trouble of putting a marcel wave into a fiber just to make it look, in raw stock, like wool, if the wave will be drawn out in the normal processing and spinning of the fiber into yarn and weaving into cloth. If the crimp disappears and does not return when the fiber is wet out and dried, or if the crimp can be ironed out between thumb and forefinger there is little chance of its surviving through to the ordinary fabric. It might have a place in some fabric like plush or pile constructions for appearance ,but its use there should not be confused with resilience.

Chemical distortion of the surface or shape of the fiber is employed to produce crimp. If it fails to produce

(*Continued on Page 46*)

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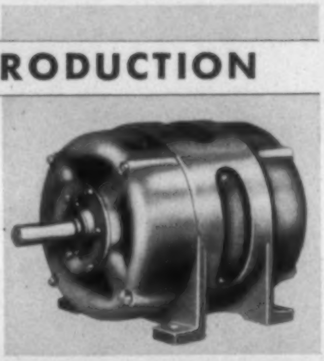

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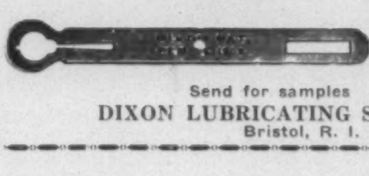

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   - (2) He wears the proper protective clothing, such as gloves, goggles when grinding ,etc.
   - (3) He uses only safe tools in good condition.
   - (4) He is especially careful of electric shock hazards and uses only portable electrical equipment which inspection shows to be in good condition.
   - (5) He avoids handling electric equipment, wiring, or lighting fixtures when any portion of his body is grounded.
   - (6) He is careful not to get his hands in the fans on top of the humidifier. He is also careful around compressors, engine fans, and belts.
   - (7) When he starts to throw a switch, he makes sure to throw it all the way to avoid arcing; it might blow up.
   - (8) He never stands in front of the starting box, for he knows it may be shorted out and the flash might burn him.
   - (9) He uses fuse pliers for the renewal of fuse.
   - (10) He does not leave any objects, such as tools, etc., lying around on the floor, for he does not want to be responsible for an accident. He keeps the floor clean of all small objects.
   - (11) He handles the hose of the water pump carefully, for it has 240 pounds pressure.
   - (12) When he starts to clean a humidifier, he waits until the fan stops. He always watches his fingers when oiling fans.
   - (13) He never starts any motor without making sure that no one is in a position to get injured by it.
   - (14) He makes certain the spikes of a ladder are stuck in the floor good before using same.
   - (15) He watches his step at all times and is on the lookout for wet or oily places on the floor.
   - (16) Before placing the repaired equipment in service, he sees that all safeguards are in place, and checks to make sure that everything is working O. K.
   - (17) He reports all unsafe conditions, practices, and defects to his second hand or overseer.
   - (18) He avoids hurrying and he keeps his mind on his work.

—From National Safety Council News Letter.

N. C. Textile Students Win Honors

Raleigh, N. C.—A number of Textile students were honored by North Carolina State College at the fourteenth annual Scholarship Day exercises on May 4th, when special awards were presented to top-ranking students in various activities and the honor roll for the year was announced.

The medal awarded annually by the National Association of Cotton Manufacturers to the most proficient Textile student in the graduating class was presented to Walter L. Fanning of Shelby, a senior in Textile Manufacturing.

William L. Carter of Franklinville won the Sigma Tau Sigma medal as the senior with the highest scholastic average in the Textile School.

The coveted Elder P. D. Gold Citizenship Medal awarded to the senior who has shown most proficiency in athletics, studies, public speaking and campus leadership, was given to Horace R. McSwain of Shelby, who is president of the College Y. M. C. A. this year. Mr. McSwain is a senior in Textile Manufacturing.

J. B. "Bunny" Hines of Winston-Salem, co-captain of the 1938 football team, and a senior in Weaving and Designing, received the Alumni Athletic Trophy voted by the student body to the most outstanding athlete in the senior class. The trophy was presented by John W. Sexton of Raleigh, president of the General Alumni Association.

The Karl Shurz Memorial Foundation Award for the senior doing the most outstanding work in modern languages was presented to Harold Nass of New York City, a senior in Textile Chemistry and Dyeing.

An Orchestra Key was presented to Harold Nass, New York City. Band Keys were presented to T. F. Parks of Lenoir, and R. A. Taylor of Whitakers, seniors in Textile Chemistry and Dyeing and Textile Manufacturing, respectively.

Textile students who made the honor roll were:

High Honors—Boger, J. D., Concord; Brannon, R. E., Rockingham; Carter, W. L., Franklinville; Echerd, C. P., Jr., Greensboro; Fanning, W. L., Shelby; Kaley, P. D., Scranton, Pa.; Mauney, J. M., Lincolnton; Williams, A. R., Jr., Greensboro; Wood, R. B., Gastonia.

Honors—Boswell, G. P., Burlington; Clements, F. M., Greensboro; Drye, L. C., Landis; Edmonds, H. W., Garden City, N. Y.; Edwards, H. V., Fort Mill, S. C.; Funderburk, G. W., Jr., LaGrange, Ga.; Gaskins, J. D., New Bern; Goldberg, N. H., Brooklyn, N. Y.; Hanna, G. V., Jr., Mooresville; Harkey, J. M., East Spencer; Hill, D. H., Charlotte; Johnson, E. S., Kannapolis; Katterman, A. W., Jr., Paterson, N. J.; Kelly, R. B., Rockingham; Kirkman, J. V., Durham; Lancaster, E. J., Jr., Winston-Salem; Leer, K. A., Cliffside, N. J.; Millichamp, John, Toronto, Canada; Moore, C. T., Rutherfordton; Musso, B. J., Walsenburg, Colo.; Nass, Harold, New York City; Price, T. B., West Jefferson; Reynolds, C. H., Duffield, Va.; Seymour Schandler, Jr., Asheville; Slesinger, M. L., Raleigh; Tager, Sidney, Brooklyn, N. Y.; Thomason, W. A., Charlotte; Turner, D. L., Greensboro; Walker, F. A., New Bedford, Mass.

It is interesting to note that many of the students listed above are sons of men well known in the textile industry.

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Yarn and Fabric Trends in Europe and America

(*Continued from Page 43*)

crimp it still might lend a wooly character to the fiber which is desirable. The so-called hollow filament fiber is in this class. It is not crimped but the fiber is inflated and the distortion of surface gives a distinctive hand. At the same time it has reduced strength and so is not used generally.

A viscose fiber of the wooly type is being made in England and is being introduced here. It is not crimped but it has a more wooly character than ordinary viscose. It is of interest in wool blends or for straight spinning in dress goods, hosiery, underwear, blankets, and suitings.

Another method of making a wooly type of fiber is by adding casein to the viscose. Such fiber is on the market in Italy and has the added feature of giving a two-tone dye effect with regular viscose.

Some resilience and wool-like character is given viscose fiber by synthetic resin treatment. This is a whole field in itself, and there are so many types and degrees of treatment that we will not attempt to do more than recognize it here as a decided trend. Treatment of fiber itself has not been adopted to any extent, but treatment of yarn is practical, and treatment of cloth is quite general commercial practice. It is employed much more widely in England than here, even though the finishing prices there are equivalent to ours here. They seem to recognize the merits of the treatment more than does our trade, and they are willing to pay for it. At least half the spun rayons are given a resin finish in England, while here it probably is not over 5 per cent.

Specific Gravity

Acetate has almost the specific gravity of wool and so in this respect is more suitable for blending with wool than viscose. This feature and the cross-dye effect seem to be sufficient to overcome the higher price of acetate staple as compared to viscose. The specific gravity plays an important part in the hand of a fabric. In wool there will be more bulk for a given weight than in viscose. Therefore one must compared microns as well as denier and grade to gain a true comparison of wool and rayon. To get the same bulk as wool one would use a heavier denier than the equivalent weight of the wool fiber.

It is probably on this basis that the American worsted trade has standardized on 5.5 denier while all of Europe uses 4.5 denier instead. In Yorkshire they choose their denier more for reasons of economy than an attempt to duplicate the size or weight of the wool fiber. Therefore the trend is toward even finer sizes instead of increasing to match American practice. In Yorkshire where there is less differential between the price of wool and rayon staple than in this country a fine size of rayon is blended with a coarse grade of wool and a finer yarn is spun than would be possible with that grade of wool alone. This thought has led to a decided trend toward the use of 3 denier in worsted blends, something which is practically unheard of here in the worsted industry.

Abraded Yarn

The efforts in spun rayon to give new wool effects have brought out efforts to make filament rayon more like spun. A virtual cross between the two has resulted in the abraded filament yarn. A filament rayon yarn is run over a rough surface and some of the filaments are snagged and broken. Thus by doing deliberately what the rayon producer has for years tried to prevent a new product is introduced which gives a fabric with some character of both the filament and the spun yarn fabrics. The abraded yarns are made in this country both in viscose and in acetate.

Flat Filaments

Artificial straw, or visca, has been on the market for years. As it gives a glint to braids and millinery and in drapery fabrics it was thought that an attractive glint to dress goods might be captured by making fine straw or flat filaments instead of the usual type. This resulted in the production of a line of acetate flat filament yarns which give a novel effect.

Thick and thin continuous filament yarn is another fairly recent innovation which produces a shantung effect and is similar in some degree to certain slub types in spun rayon.

In Lancashire spun rayon slubs are being made in twenty-eight-inch lengths with only an inch or so between the slubs. It makes almost a pique, or bengaline type of cloth. The same mill has a slub attachment on mule spinning with a repeat about once a week. This almost complete lack of pattern is of interest in using both thick and thin yarn and slub spun rayon.

Spun-Dyed Staple

The cost problem of stock or top dyeing rayon in fast colors for wool blends brought about the production of a range of half a dozen colors in spun-dyed staple in England which is also available in this country. While it originated for worsted practice the Lancashire mills have taken it up and have found it quite economical in cotton practice. Fast colors can be spun into yarn at prices much less than is possible with fast stock-dyed material. The spun-dyed colors are fast to everything as the color is all through the fiber and a part of it.

The use of either stock-dyed or spun-dyed staple is more prevalent in Lancashire than here. Beautiful heather mixtures for fall are being made there this spring by blending colored fiber. The blends are being made at the drawing frame, where the effect is controlled by the arrangement of colored sliver. A different order of the colors changes the shade of the resulting yarn. Three denier white is blended with 1.5 denier colors to go to the outside and gives a smoky tone to the fabric. The effect is particularly pleasing as it gets away from any garish contrast of color and makes a fine blend. In blending one color and white to make a shade it is common practice in Lancashire to comb the material to insure even blending and to avoid mottled patches of color or white.

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71 Textile Students Graduate in Chattahoochee Valley Schools

West Point, Ga.—Seventy-one textile students in the valley schools were awarded diplomas and certificates at the graduating exercises held in the Langdale auditorium. Dr. J. B. Hobdie, of Montgomery, State Director of Vocational Education, delivered the commencement address. He was introduced by G. M. Barnett, Chambers County Superintendent of Education.

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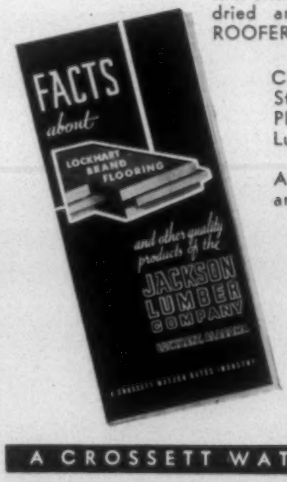

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WOLF, JACQUES & CO., Passiac, N. J. Sou. Reps., C. R. Bruning, 306 S. Chapman St., Greensboro, N. C.; G. W. Searell, Box 102, Lenoir City, Tenn.

Callaway Opens Western Office

LaGrange, Ga.—Announcement is made that the Callaway Mills, operating several large units in Georgia, have established in the Western Merchandise Market, San Francisco, Calif., Western sales headquarters for the products of the company's Valway unit, novelty rug manufacturing plant.

Raymond M. Arnette, who has been Western representative for the Callaway Mills for several years, will have charge of the company's new show room and office.

Suit Against Burlington Mills Fails

Winston-Salem, N. C.—A Superior Court jury has denied damages to T. H. Burkhardt, Shelby, in his $159,200 suit against the Burlington Mills Corp. and its president, J. Spencer Love.

The verdict, in the case in which Burkhardt charged Love with making fraudulent misrepresentations on the value of stock Burkhardt owned, came after almost an hour and a half of deliberation.

Love testified he had urged Burkhardt not to sell the stock but to hold on to it for several years.

Geographic Distribution Of Rayon Weaving Yarns

The National Rayon Weavers' Association recently released a compilation on the use of rayon yarn divided by process and by North vs. South. Northern mills used 61,852,392 pounds of viscose and cuprammonium yarn, or 55.5 per cent of the total of those two types; Southern mills used 49,654,921 pounds, or 44.5 per cent.

Consumption of acetate was as follows: Northern mills, 24,518,132 pounds, or 46.0 per cent; Southern mills, 28,837,344 pounds, or 54.0 per cent.

Total poundage of all types consumed by domestic broad weaving mills amounted to 164,862,789 pounds, with Southern mills accounting for 47.6 per cent of this figure.

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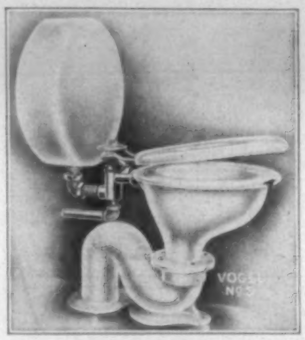

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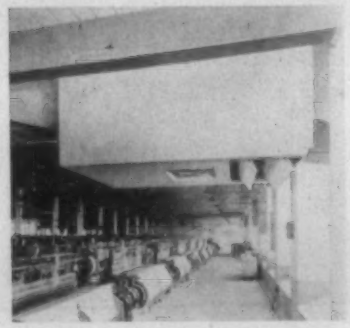

1

AIR ENTERS

Fan in this mixing chamber draws in air . . . and propels it forward. Air comes from outside (opening not shown) . . . or from room (opening at bottom) or at times from both.

2

. . . IS PUSHED

Pushed forward through ducts at ceiling, the amount of outside air . . . or its mixture with inside air . . . is regulated and automatically balanced with evaporation.

3

IS DISCHARGED

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4

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